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TRANSACTIONS OF THE SPECIAL CONFERENCE

OF

STATE AND TERRITORIAL HEALTH OFFICERS

WITH THE

UNITED STATES PUBLIC HEALTH SERVICE

September 16 and 17, 1940

FEDERAL SECURITY AGENCY
PUBLIC HEALTH SERVICE
WASHINGTON, D. C.

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MONDAY MORNING SESSION

September 16, 1940

The first session of the special conference of State and Territorial Health Officers with the United States Public Health Service convened at nine-thirty a.m. in the auditorium of the Public Health Service building, 19th and Constitution Avenue, Washington, D. C. Dr. Thomas Parran, Surgeon General of the United States Public Health Service, presided.

DR. PARRAN: The most impelling problem which we face today is that of maintaining the safety of this country and its institutions. For their aggressive defense, we are gearing up governmental methods, mobilizing resources and manpower.

For the first time in all history, world events have thrust upon us the concept of a total war. In preparing a total defense, all factors ultimately rest upon the one fundamental resource of the country - manpower. Medicine and public health through the centuries have been devoted to the conservation of manpower and its socially constructive use.

Pursuant to the act of July 1, 1902, you have been called today to meet for the consideration of ways and means by which we may take the first steps through coordinated Federal and State action to conserve and utilize the vital resources of our country for national defense.

In addition to the State and Territorial Health Officers and our National Advisory Health Council, I have invited representatives

of other Federal agencies concerned and of professional and voluntary agencies. This is desirable because of the complexity of many of the problems with which we are faced. Also, we need now, as never before, an integrated effort on the part of all agencies which represent the purpose of our citizens to attain personal and national health.

The Federal government has planned a closer coordination of health activities to promote national defense than we have ever known before. We now have a coordination of civilian health problems with social welfare, children's problems, nutrition, and other consumer interests under one of the seven members of the Advisory Commission to the Council of National Defense. We may anticipate soon a further coordination of medico-military and health defense problems as a major preparedness measure.

The immediate problems which you have been called to consider are listed in the program for detailed discussion. I shall refer to them briefly.

The Selective Service and Training Act contemplates the registration of about 16,500,000 men, the physical examination of from two to four million, and the induction into military training of several hundred thousand. There is a clear necessity for maintaining a balance between facilities to care for the civil and industrial needs on the one hand and the needs of the military forces on the other. This leads to considerations of recruitment policy, the status of key personnel in essential health and medical service, and training programs to insure an uninterrupted output of professional personnel needed for both civil and military demands.

Among the 16,500,000 registrants there will be found countless physical defects and many cases of communicable disease. For example, a large proportion of the acute syphilis is among this age group. Here will be 300,000 foci of infection going into registration booths on one day. Have we the energy and the vision to offer a blood test to these men? It is a major opportunity to mobilize all of our public health and medical effort to find and stamp out perhaps the larger portion of this menace to national fitness. We shall have much to do also in providing isolation and care for the many active cases of tuberculosis which will be found on draft examinations. We should do it for trachoma.

Even though our physical status may be better today than in 1917 and 1918, we know that a large segment of the registered population will be disqualified for military service because of physical defects, many of which are remediable. What are the ways and means in which public health and medical agencies may contribute to their rehabilitation?

Of immediate concern also are the sanitary and health emergencies created by the mobilization and military maneuvers of large bodies of troops in many States. The situation raises questions of military necessity - Federal versus State relationships and responsibilities - and even suggests the need to consider some plan for regionalized administration.

Industrial mobilization and expansion coincides with military mobilization and expansion. Although we have made progress, we still are far from solving all the long-time problems associated with occupational accidents, disease, and physical impairment among

workers in ordinary times. Defense preparations have greatly augmented these problems and created acute new ones.

We are not yet geared to protect men working in new and hazardous processes which are being introduced, nor are we prepared to alleviate the burdens upon the housing, medical, and health facilities of the community imposed by large population shifts to expand industries.

Although more than 30 State industrial hygiene units have been established during the past four years, most of them consist merely of an organization nucleus inadequate to meet current problems effectively. Just as we now have insufficient air, land, and naval forces to meet every threat to our safety, so we have also insufficient forces trained in industrial medicine, public health, and sanitation to serve our military, civilian, and industrial needs. One of the narrowest bottlenecks is the shortage of men trained for industrial medical service. Whose responsibility is it to meet this need? If our industrial machines are the most efficient in the world, the men and women who operate them should have a comparable efficiency.

Further, I would call your attention to the status of the approximately one-half million young people between the ages of 18 and 21 to be employed by the National Youth Administration, many of whom are being trained in skills needed by defense industries. The boys will be of military age in a few years. If we do our part now, both industry and the armed forces will be spared some of their present problems. The National Youth Administration, with the help of the Public Health Service, is developing a health

program to be carried out in the several States. If it is to be successful, State and local health agencies and the medical and dental professions must participate actively.

And finally, may I suggest that the immediacy of these and other matters to be discussed should not prevent your viewing them at long range. It is true that the world picture changes almost overnight and that overnight our own needs may become much more acute. From my own point of view, however, we should plan for the long haul. It does not seem likely that the situation in which we find ourselves will be resolved in six months or a year - perhaps not for many years. Nevertheless we have this enduring satisfaction - that what we do here, if it be well done, is imperative for safety in war, but it is even more greatly productive for permanent peace. Whatever the future holds for us, our effort can not be wasted. We build for a strong, a vigorous America, eternally ready for tomorrow.

We had expected to have here this morning the Administrator of the Federal Security Agency, but he has been called out of town and his representative will appear later.

I should like to mention the guests whom we have invited. I hope I shall not overlook any from this very sketchy sheet before me.

A representative from the American Medical Association - Dr. Leland. Dr. West could not attend. From the American Public Health Association - Dr. Reginald Atwater. The Rockefeller Foundation - Dr. John Ferrell. American Social Hygiene Association - Dr. William F. Snow. The Rosenwald Fund - Dr. M. O. Bousfield.

The National Organization for Public Health Nurses - Miss Dorothy Deming. The National Tuberculosis Association - Dr. Kendall Emerson. The American Hospital Association - Dr. Munger, and Dr. Winfred Smith.

From the American Legion - Captain Watson Miller. The Surgeons General of the Army and the Navy, or their representatives, will be here. From the Advisory Commission, Council on National Defense, Miss Harriett Elliott, or her representative, Miss Shepperson. In addition the members of the National Advisory Health Council are present; Dr. E. L. Bishop, Dr. A. J. Carlson, Dr. Hans Clark, Dr. Harold S. Diehl, Dr. E. R. Long, Dr. Carl Meyer, Dr. Paul A. O'Leary, Dr. Lowell Reed, Dr. W. A. Sawyer. A representative from the Veterans' Administration is coming. American Dental Association - Dr. Willard Camalier. American Red Cross - Dr. DeKleine. National Youth Administration - Mr. Aubrey Williams. Federal Trade Commission - Dr. K. E. Miller. U. S. Employees Compensation Commission - Dr. Halpin. Farm Security Administration - Dr. R. C. Williams. Indian Medical Service - Dr. J. G. Townsend. The Medical Division of the National Research Council - Dr. Louis Weed.

DR. MOUNTIN: We don't know yet who is coming from the Housing Authority.

DR. PARRAN: The first topic scheduled for discussion is Status of Federal Health Legislation - Dr. Warren F. Draper.

STATUS OF FEDERAL HEALTH LEGISLATION

DR. DRAPER: Dr. Parran and members of the Conference, - A brief review of the pending legislation may be of interest to many of you at the beginning of this meeting.

S.3230. The rural hospital bill. The bill is to provide

for the construction, improvement, and enlargement of hospitals, especially in rural communities and economically depressed areas. It authorizes the sum of $10,000,000 for the first six years, and for five succeeding years such sums as may be necessary for hospital maintenance grants under the Act.

This bill passed the Senate May 30, 1940 and is now awaiting action by the House Committee on Interstate and Foreign Commerce of which Mr. Lea of California is chairman. The plan for construction of hospitals in rural areas was, as you know, suggested by the President.

S.3607. To authorize research by the Public Health Service relating to the cause, diagnosis, and treatment of dental diseases. This authorizes an appropriation of $75,000 the first year and an increase of $10,000 a year for the five succeeding years.

This bill passed the Senate on September 12, 1940 and is now awaiting action before the Interstate and Foreign Commerce Committee of the House of which Mr. Clarence Lea is chairman.

S.1620. The Wagner health bill. Extensive hearings have been held on this measure by the Senate Committee on Education and Labor. The measure is still in Committee.

S.685. The stream pollution bill. This bill is for the purpose of creating a division of water pollution control in the Public Health Service and for other purposes. It authorizes the sum of $300,000 a year for administration of the act and the sum of $700,000 a year to be allotted to the States for expenditures by or under the State health authorities for the prevention and control of water pollution.

Hearings have been held on this bill, and it has passed both the Senate and the House of Representatives. The House of Representatives offered an amendment known as the Mundt Amendment. The conferees between the Senate and the House have as yet failed to agree on the bill so it is still in conference.

S.3461. To provide for the control and prevention of industrial conditions hazardous to the health of employees under the administration of Federal and State Departments of Labor. This authorizes the sum of $1,000,000 the first year, $2,000,000 the second year, $3,000,000 the third, and thereafter such amounts as may be necessary.

Hearings have been held by the Senate Committee on Education and Labor, and the measure is still in committee. The provision is not in accord with the financial policy of the President.

New legislation and appropriations: These may be necessary in connection with the program of national defense. It is expected that this subject will be developed in the discussions of the several items on the program and that recommendations will be formulated by the committees of the Conference. Among the most important considerations are:

Plans and costs of health and sanitation measures in areas around military camps and maneuver areas.

Plans and costs of medical and public health services for defense industries and areas around industrial concentrations.

Plans and costs for the rehabilitation of persons who are otherwise found to be satisfactory and available for induction into the land or naval forces, but who are placed in deferred status

because of physical defects or ailments which are readily amenable to treatment that will render them acceptable for military service.

The President has at his disposal certain appropriations for defense purposes which, if still available, might be legally allotted for activities on our agenda after budgetary and certain other considerations have been satisfied.

If funds for these purposes are not obtainable from this source, it is probable that additional Congressional appropriations and new legislation will be necessary.

The point I would like to make clear is that up to the present time no new legislation has been introduced or actually formulated, other than what I have just set forth, which would make available any funds for additional work.

Thank you.

DR. PARRAN: Are there any questions that any of the health officers or guests would like to ask Dr. Draper?

(Questions on problems arising through mobilization were deferred until that subject would come up.)

DR. PARRAN: (In the absence of Mr. Williams and Dr. Harrison who were scheduled to speak) It occurs to me, Mr. Roseman, that this might be an appropriate time for you to discuss the work of the Division of States Relations of the Advisory Commission, Council on National Defense. That is the division under the direction of Mr. Frank Bain which has the responsibility for contact with the State defense councils. I know that many of you State health officers, I hope all of you, are associated with the State defense councils in your respective States. Mr. Bain was out of town, but he has asked Mr. Roseman, his assistant, to represent him.

MR. ROSEMAN: (Abstract of remarks.) We act as a channel between the Advisory Commission and the State and local governments. Very few of the functions of the Advisory Commission are purely Federal in nature - in fact, the seven members of the Commission represent only two functions which could be considered essentially Federal. These are Mr. Stettinius' work in the accumulation of raw materials necessary for defense and Mr. Knudsen's work in connection with problems of production. Even in Mr. Knudsen's work there are many important issues of State and local relationship.

What we have done may be summed up very simply:

We have endeavored to keep before the Commission that our machinery of government at all levels has greatly improved in the past 25 years, and that our job lies in securing and developing a methodology by which this machinery may be developed and utilized to the greatest extent in this broad defense program.

The Division of State and Local Cooperation has been asked by the President to act with the States in developing the activities of the Department of Justice. Its activities - having to do with sabotage, law enforcement, and civil protection - are not strictly within the scope of the Defense Commission.

I want to emphasize strongly that the Division has no content program of its own. We bring the problems of the State and local government to the attention of the Commission and other Federal agencies. We get out a weekly bulletin which goes to the State defense councils. We get out special reports on request of the commissioners. We maintain a continuous liaison within the Defense

Commission and with the other Federal agencies which permits us to respond to requests for information and service which come from the State and local governments.

The defense councils are primarily responsible for the establishment of this Division of State and Local Cooperation. Shortly after the Advisory Commission to the Council of National Defense was brought into being, the Governors of the various States began to appoint committees. By the time the Governors met in Mackinac in June, there were perhaps seven or eight of such committees in being and others under way. The Governors asked the National Defense Advisory Commission for suggestions on this subject, and as a result of a study which the Advisory Commission had made by Mr. Guy Moffatt of the Spellman Fund the Division of State and Local Cooperation was established. There are some 30 State councils in all, of which about 20 have been formed within the last six weeks. Those that have been set up since the Division of State and Local Cooperation has been organized are essentially advisory groups to the Governor. We have suggested that the Governors in establishing State councils should include not merely the industrial and military but all the public social services necessary to the mobilization and defense of our economy.

We are not suggesting what these defense councils should do in the field of health. Others more competent than we are responsible for that work. Our concern is with watching the overall impact of this defense program on State and local governments.

The industrial migration of labor brings up problems of education, health, housing.

We are all interested in the essential problem of what in the event of mobilization is going to be left for the protection of the civilian population. Where are we to get our doctors, our nurses, and our sanitary personnel?

Someone in the State defense councils - and we hope it is a State health officer - should keep before the council continuously the health implications of all their activities. Also, someone has to watch out for public health problems in industrial migration and in centers for new activities. I am sure that Dr. Parran will agree that no one on the Federal level can watch those as well as can the State and local health officers.

(No questions)

DR. PARRAN: Dr. Mountin will announce the committees which will deal with the topics we are to discuss.

DR. MOUNTIN: Insofar as possible, we have endeavored to utilize the committee structure of the previous Conference of the State and Territorial Health Officers with the Surgeon General and one committee of the State and Provincial Health Authorities of North America.

I shall now read the committee memberships and give you the assignments and show where each committee ties in with the program. 1/

The chairmen of these committees may wish to concern themselves with other items than the ones mentioned, but I shall give only the particular subject on which we expect the committees to report.

1/ The membership of these committees is omitted from these remarks and given in the Appendix.

We have appointed a new committee on Public Health in Areas of Mobilization. That has to do with military as well as industrial mobilization and will be concerned primarily with the subject coming up this afternoon at 1:30 - Health Administrative Problems arising out of Mobilization.

The Committee on Professional Education and Qualifications will be concerned with whatever suggested training programs may grow out of our discussion. The need for training industrial physicians has already been mentioned by the Surgeon General. We also wish that Committee to concern itself with the last item on the program, beginning tomorrow afternoon at 2:00 o'clock - the Census of Public Health Personnel and Facilities.

The Committee on Venereal Disease Control has two items on the program to consider, Venereal Disease Control in the Areas of Concentration, Military and Industrial, to be presented this afternoon by Dr. Vonderlehr, and the Serologic Tests of Registrants for Military Service to be given tomorrow at 11:00 by Dr. Wenger.

The Committee on Interstate and Foreign Quarantine will address itself particularly to the problems in communicable disease control which Dr. Harrison will present to us very shortly and other related items that may occur to the chairman or members of the Committee.

The Committee on Hospitals and Medical Care will be concerned primarily with the items to be presented in the symposium tomorrow morning at 10:00 o'clock - Physical Rehabilitation of Registrants Disqualified for Duty with the Armed Forces. The symposium will be led by Mr. Perrott, Dr. Coffey, Dr. Kendall Emerson, and

Dr. Overholzer. This committee also should have some suggestions for implementing the medical care program that is being developed for enrollees of the National Youth Administration.

Another item on the program is the Status of Health Personnel in Relation to Military Service. That is the call now being issued to the members of the Reserve and the Guard and also the call that will be issued later under the Selective Training and Service Act. The discussion on that full problem will be led this afternoon by Colonel Spruit of the Army at 3:00 o'clock. Inasmuch as that is primarily a problem of State and local health officers, to be taken up directly with the military authorities, we have utilized a committee of the State and Provincial Health Authorities - the Committee on Federal Relations. I might say that Dr. Osborn has already had some meetings with the military authorities and will present the results of those meetings to you.

May I answer one question that's already been asked by Dr. Baker, and I see Dr. Godfrey is on the verge of asking it again? Is there any duplication in membership of the several committees? Yes. There is some duplication, in that Dr. Osborn's Committee - which is a standing committee of the State and Provincial Health Authorities - draws on some of the members who also are on committees set up by this Conference, but we didn't take the liberty of disturbing Dr. Osborn's setup.

DR. OSBORN: Mr. Chairman, I shall be glad to release any of my members to any other committee to which they might be appointed.

DR. PARRAN: I see that Dr. Harrison has arrived, and I shall call on him to present a statement concerning the Control of Selected Communicable Diseases of Military Importance.

Dr. Harrison.

CONTROL OF SELECTED COMMUNICABLE DISEASES

DR. HARRISON: Dr. Parran, Ladies and Gentlemen, - The diseases of military importance for which means are available for producing active immunity are not very numerous. As we know, before the Army or the Navy can adopt a method for routine use in active immunization, the procedure must be upon a very firm foundation, and since the first World War such an antigen for a single disease only has been developed. This antigen is tetanus toxoid, and for the group to be mobilized as a result of the Selective Training and Service Act tetanus toxoid will be added to smallpox vaccine and typhoid vaccine which have been used heretofore.

The prospective soldier, when he enters upon his course of training, will on the day of entrance receive smallpox vaccination in the left arm, and a dose of fluid tetanus toxoid at the same time in the same arm, and in the right arm he will receive a dose of typhoid vaccine.

Seven days after entrance he will receive a second dose of typhoid vaccine in the right arm; fourteen days after entrance he will receive a third dose of typhoid vaccine in the right arm; twenty-one days after entrance a dose of tetanus toxoid in the left arm; and forty-two days after entrance a third dose of tetanus toxoid in the left arm. Thus the entire course will be completed in six weeks.

At the end of a year, or upon entering a combat zone, he will receive a booster dose of tetanus toxoid. Thereafter, he will receive no further immunization against tetanus unless he should receive a wound which might result in tetanus infection. A wounded man will receive a dose of tetanus toxoid and no further treatment so far as tetanus is concerned.

The use of prophylaxis tetanus antitoxin is to be entirely discontinued.

We use fluid toxoid instead of precipitated toxoid, and I thought perhaps you would like to know why. The French, British, and Canadian Armies, and perhaps also the Italian Army, have all been immunized with fluid tetanus toxoid. Millions of doses have been given with practically no unfavorable reactions.

In the United States precipitated toxoids have been used quite extensively. We have had a number of unpleasant local and general reactions following the precipitate; hence we didn't feel justified in suggesting to the military authorities that they use the precipitate on such a wide scale as will be necessary.

Diphtheria offers a problem for certain military groups. It isn't difficult to understand what would happen if a case of diphtheria were to occur in a gun crew on a battleship, but we don't feel that the disease is sufficiently important in adults to warrant routine immunization of all adults in the Army and the Navy.

Now so much for active immunization of the military personnel. There are a number of diseases which become more prevalent when large numbers of non-immunes are brought together. I think perhaps the one of first importance is meningitis. It isn't

necessary to tell you gentlemen that there has been a decrease in the total number of meningitis infections all over the country in the last few years, and as a result of this small number of cases there has been more or less of a change in the type of infection.

Group 1 meningococcus is the organism which is most apt to be encountered in epidemics, whereas group 2 is found in sporadic cases.

There is one thing that we can say definitely about meningitis. We have learned in the twenty years which have passed since the first World War that it is absolutely futile to attempt to suppress an outbreak of meningitis by culturing so-called contacts. I think everybody agrees that it is useless to attempt to locate carriers by this method.

The most important single measure, perhaps, is the control of crowding. If young men from rural sections, highly susceptible to disease, are overcrowded into barracks, we can almost certainly expect outbreaks.

Cases have been so infrequent during the last few years, especially since the development of chemotherapeutic measures, that we don't actually know how active these new substances are in the treatment of meningitis. We do know in animals, however, that both sulfanilamide and sulfapyridine are active substances, sulfapyridine perhaps about ten times as active as sulfanilamide in the animal work. We know that specific serums are of value in the treatment of the disease in animals, and we know that serum plus sulfapyridine, or serum plus sulfanilamide, is more effective than either serum or drug alone. It is very likely that

some physicians will attempt to treat meningitis without serum. It is perhaps more likely that before the emergency has passed, group 1 serum will also be used. Based upon our laboratory and clinical evidence, it is certain that serum plus sulfapyridine offers the best treatment for meningitis.

We can expect a great deal of pueumonia. In spite of many experiences with pneumonia in so-called epidemic form, I think we will have to agree that pneumococcus infections are not very contagious. All we have to do is to watch the treatment of a case of pneumonia in a general hospital. It is not treated in the same way, for example, as a case of meningitis. That is to say, the interns and nurses care for the case without meticulous precautions, and cross-infections are very rare.

We have adopted standards for five types of pneumococcic serum - I, II, V, VII and VIII. We have been searching for a common denominator for these sera and instead of the problem becoming simpler, it seems to become more complicated. I understand that there are just about to be announced fourteen new types of pneumococci. That will make forty-four, I think. However, sulfapyridine and allied products are very effective, and I believe that in the absence of expert laboratory assistance the physician is justified in using these drugs to the exclusion of serum. There is no question about the spectacular effects of pneumococcus serum when used in the proper way, but we don't expect the practitioner who is in more or less unfortunate circumstances, so far as laboratories are concerned, to be able to utilize pneumococcus serum to its greatest extent. There is no question about the effectiveness of sulfapyridine and allied preparations in pneumococcus pneumonia.

In the past 22 years we have learned one especially significant point about influenza - we know that it is due to a filterable virus. There are numbers of experiments going on now in an effort to prepare a method of active immunization against influenza. These are entirely experimental, and I regret to say that so far as our knowledge of the control of outbreaks of influenza is concerned we are exactly where we were 22 years ago. We might as well admit it.

Thoughtful persons would not be surprised if there should be a sharp increase in the number of cases of influenza. The signs are there for anyone to see. It has been 22 years since the last sizable outbreak.

Measles is sure to make its appearance in camps where boys from the rural sections are accumulated in great numbers. We have three preparations for the prevention of measles: convalescent serum, which is perhaps the most effective; placental extract, or immune globulin, as you wish to call it, which is also effective; and always we have whole blood from adults who have at some time in their lives had measles. This whole blood requires larger doses when given well within the incubation period. The effective use of these products presupposes an accurate knowledge of the measles history of the exposed individual.

Mumps also is very troublesome when you bring together great numbers of boys. The disease itself is not particularly dangerous, but we know the difficulty which is encountered because of complications. Mumps is probably due to a filterable virus, but that is not definitely decided as yet. There is no method for active immunization nor for specific treatment.

Health officers from the southern States will be interested in yellow fever. It isn't difficult to visualize the hazard a non-immunized military force would have operating in an endemic area. Methods of control are mosquito eradication and immunization. The vaccine is a live virus which is grown on the chicken embryo; so far as we know, it is entirely harmless and produces an effective immunity. It is not necessary to stress here the importance of quarantine measures at airports of entry into territory where the disease may spread or establish itself.

Malaria is also a disease which has been with us for a long time. It is of special concern on account of the difficulty which may be encountered with regards to the supply of quinine. As you no doubt know, 90 to 95 percent of the world's supply of quinine comes from the Dutch East Indies. It is controlled by a Dutch cartel, or syndicate, which has been compelled to move from Holland to Bandoeng in Java. Our supply now comes in regularly. There has been no interruption as yet; in fact there has been some addition to the normal supply in the United States. I think it is safe to say that we have on hand, over and above our regular requirements which are being supplied by the regular channels of trade, at least a year's and possibly a fifteen months' supply of quinine.

DR. CARLSON: For the whole country - civilian and military?

DR. HARRISON: For the whole country - civilian population and the military personnel also. As I said, at least a year and perhaps fifteen months, and as the quinine is being used we are still able to get in new shipments. There is no interference with shipping as yet between Java ports and American ports.

Essentially the same statements apply to opium except we have a much larger supply; my understanding is that there is at least four years' supply of opium in the United States. Before the Mediterranean was closed, manufacturers were able to send three or four large shipments from Turkish ports.

These two drugs, quinine and opium, are strategic drugs in that they are not supplied in this country. And I might say with regard to quinine, if we should find ourselves short, the substitutes atabrin and plasmochin are manufactured in the United States by an American firm and without any control whatever from abroad. We are assured that the needs of the country will be met. The manufacturer only wants to know when the emergency arises so that our demands may be met promptly. I would like to add that quinine and opium are made available by private American firms, and they deserve a tremendous amount of credit for it.

So far as strychnia and coca leaves are concerned, we need not worry very much about them; we need only to discontinue the use of strychnine in rodent poison to have plenty, and coca leaves are not very important because of the synthetic substitutes.

Now with regard to biological producers, I am informed that manufacturers have enough tetanus toxoid on the shelves to immunize the first group to be inducted, and the subsequent amounts will be coming along as they are required. The supplies of tetanus antitoxin, gas gangrene antitoxin, typhoid vaccine, and smallpox vaccine, which are critical supplies, should not be the cause of any worry. I am sure that there is enough on hand and being manufactured to take care of any demand that the country might make upon the manufacturers.

Thank you very much.

DR. PARRAN: Thank you, Dr. Harrison. Won't you stay at the front here so you can answer questions as they come up? Dr. Sawyer, would you care to open the discussion of Dr. Harrison's presentation?

DR. SAWYER: (Abstract) I have just come back from France - including the occupied zone. I inquired about the disease problems among the population and in the prison camps, but the only one raised was dysentery. The absence of typhoid is presumably due to the fact that armies have been thoroughly vaccinated. Dysentery has been prominent recently in some of the prison camps and neighboring civil communities in the north of France. It was of the Flexner type, and the mortality was low. I was under the impression when I left that it was disappearing. At the moment there seemed to be no other serious problem, though they anticipated all sorts of trouble in the coming winter especially from causes related to nutrition.

There seems to be enthusiasm there, as here, about the use of tetanus toxoid, and a great deal of satisfaction.

I have worked with yellow fever a great deal in past years. As you have been told, there is manufactured on a very satisfactory basis in this country the vaccine which Dr. Harrison mentioned as being a living virus and which seems to produce a solid immunity. The laboratory of the International Health Division is completing a lot of 150,000 immunizing doses which can be made available to the Army and Navy and possibly to other groups.

About influenza, we are just at a point where we might very well feel that we have a little more over which to be encouraged than Dr. Harrison seems to think. Much work is being done on a new

type which they call a complex influenza vaccine - a killed vaccine which increases antibodies up to twenty times in persons who haven't already a high antibody content in influenza. The question is - what degree of protection against natural infection do human beings receive from an increase of ten to twenty times in their antibody content starting from a susceptible level? Certain field tests have been carried out, but they are as yet inadequate. As soon as that question is answered, we shall know whether we can do anything practical about influenza in our Army and Navy.

Thank you.

DR. PARRAN: (Calls on Dr. Weed of the National Research Council.) I wonder, Dr. Weed, if you would care to discuss the activities of the Medical Division of the Council particularly in communicable disease control?

DR. WEED: (Abstract) The Division of Medical Sciences of the National Research Council was requested informally by the Surgeons General to set up committees to act solely in an advisory capacity with the armed services, particularly the two medical corps and the Public Health Service. The most pressing questions seemed to arise out of the treatment of surgical shock and the use of chemotherapeutic agents. National committees were accordingly set up so as to feature these two subjects. The work on shock is under the leadership of Dr. Walter Cannon. In chemotherapy the committee consists of Dr. Perrin Long, Dr. John F. Mahoney, Dr. Blake, and Dr. Lockwood. It has made definite recommendations regarding the use of chemotherapeutic agents, particularly the sulfanilamide, sulfapyridine, and sulfathiozole compounds.

One subcommittee has infectious diseases, another under Dr. Sawyer diseases of the tropics, and another venereal diseases.

We have organized committees on information in medicine and surgery. As soon as the relation of medicine to the National Defense Program is established, committees will be set up on neuropsychiatry and preventive medicine and probably on nutrition.

Recommendations are sent to the medical corps of the Army and Navy and to the Public Health Service, and I am sure that these groups would be happy to make the recommendations available to others that would like to have them.

DR. PARRAN: Thank you, Doctor. (Calls for questions. Dr. DeKleine asks about the comparative properties of atabrin and quinine. Dr. Ferrell asks about the quinine reserve in South America.)

DR. L. L. WILLIAMS: According to available information from most parts of the world, atabrin in the majority of cases is a good substitute for quinine. It seems to be as good but not any better. There are cases of malaria which quinine does not cure readily, and they usually yield to atabrin. Probably an equal number of cases do not yield readily to atabrin but do yield to quinine.

DR. HARRISON: (The following is an abstract of his answer to Dr. Diehl on the use of pneumonia vaccine.) I think the use of pneumonia vaccine is entirely experimental. There is certainly no evidence to warrant its use on anything like the scale necessary for military forces.

Answering Dr. Ferrell, certain Latin American countries have always been dependent upon the United States for quinine, and

the figures I gave include them. I should say that the so-called iron stocks in which surplus quinine is placed are larger now than they have ever been, due to the public-spirited action of two of our American firms. The supply on hand, sufficient for a year or slightly more, includes the regular shipments which go to South America.

I want to add on the subject of atabrin that the great advantage of quinine is that it can be taken without medical supervision, and this does not tend to be true of atabrin.

I neglected to mention the use of human serum in shock. Experiments are now under way, largely under the auspices of the American Red Cross, to devise methods for the collection of human serum and its storage in the form of plasma for use on a large scale to combat shock. American manufacturers are conducting experiments to determine a practical method of drying plasma. Dried plasma keeps indefinitely while liquid plasma has a time limit on its use.

Dr. Sawyer spoke of dysentery. My understanding is that they have a great deal of dysentery in France. Outbreaks in this country, except the type that was present in Chicago, have not heretofore given us much of a problem.

I know that tetanus toxoid has been effective in the French Army because Professor Ramon has made a definite statement that he has not heard of a single case of tetanus among inoculated individuals.

(Dr. Riley of Maryland inquires of Dr. Sawyer what effect venereal disease control work is having on syphilis and gonorrhea in France and England, and Dr. Sawyer answers that he has been unable to get any definite opinion or statistics on the results.)

DR. GODFREY (New York): I would like to inquire of Dr. Harrison whether supplies of pneumonia serum are sufficient. Should those health departments which manufacture serum keep their horses immunized or trust to rabbits?

DR. HARRISON: The American manufacturers have had difficulty in disposing of pneumococcus serum since the advent of the chemotherapeutic substances. You will see in their cold rooms long lines of pneumococcus serum that can't be sold. I think the supply is adequate for the present, and the stock of course can be rapidly built up in rabbits.

DR. GODFREY: You think they ought to trust to rabbits instead of maintaining horses?

DR. HARRISON: It is according to what type you are speaking of, Doctor. For some types, rabbits, and for other types, horses might be used.

DR. GODFREY: Well, type 1 is most likely to show up in epidemics.

DR. HARRISON: I am not prepared to say whether we should use pneumococcus serum from horses or rabbits; that is a very controversial subject. But I don't think we need worry about pneumococcus serum as such; I think our needs will be taken care of.

(At the suggestion of Dr. Bierring of Iowa, Dr. Carlson of the University of Chicago is asked to speak of work on pooled human serum for shock.)

DR. CARLSON: (Abstract) The work of which I speak is being done by a group at one of our Chicago hospitals. The main point is that if the human serum of all four groups is mixed, not

necessarily in equal proportions, this pooled serum can be administered to all four types of persons without previous typing and without reactions, the usual reaction to a foreign type serum. The workers seem to agree on these points so far as they have gone. I wonder if any similar work has been done in the medical service of the Army and the Navy? The most I am saying at present is that this idea seems to work out.

I would like to ask Dr. Weed a question on traumatic shock. Has your Committee any funds to accelerate the necessary research work? (Dr. Weed's reply is that funds will probably be made available, and the Committee, with Dr. Blalock as chairman, is prepared to go ahead. Refers the subject of pooled serum to Commander Stephenson.)

COMMANDER STEPHENSON: (Abstract) The question has been before the National Research Council. We are in a position to ask for donors to provide blood for plasma. If we desire to go still further and dry plasma, we have plans already perfected by which as much plasma as anybody will have use for may be dried. In Great Britain they feel that it is unsafe to use stored plasma after a long period of time. They will use lyophilyzed serum for the Royal Navy and for troops serving in the tropics. Patents for this process have been granted to Flosdorff & Mudd but have now been consigned to Sharpe & Dohme. They have machinery for the lyophilizing process in Great Britain. The process is complicated because of the very low degree of temperature required - about minus 80 degrees Fahrenheit, and in addition to that you must have a vacuum. But pumps are now being made which can go into service immediately, whenever we decide to put this product in storage.

(Dr. Musser now asks Dr. Harrison if he is prepared to recommend the prophylactic use of quinine or atabrin for troops in the field moving over large areas. He asks further why it is not possible to give the toxoid of diphtheria and tetanus simultaneously. And finally, he asks what plans are in process concerning undulant fever.)

DR. L. L. WILLIAMS: (The first question is referred to him.) (Abstract of answer) Dr. Musser, I will try and give you a brief answer to a rather controversial question from opinions that I value most. Neither quinine nor atabrin is a true causal prophylactic. Neither will prevent infection with malaria. But, if the troops are in the field and cannot be readily hospitalized, and perhaps cannot even be cared for if they cease to be ambulant, and the section is highly malarial, such as one encounters on a tropical detail, either quinine or atabrin is a very effective clinical prophylactic in well above 95 percent of human beings. Either small daily doses of quinine or small doses of atabrin on two days of the week for each individual will prevent the development of active clinical symptoms of malaria in most cases, plus the added advantage of keeping troops on their feet. On removal of the individual from the affected territory and cessation of the drug, one may expect a rather large number to have attacks of malaria which would have come as relapses if the original clinical attack had been allowed to develop.

DR. HARRISON: (Abstract) Dr. Musser asked, also, concerning the use of diphtheria toxoid in military forces. We have always felt that the immunization of adults to diphtheria was only necessary for those to whom the hazard was greater than in the general population.

It is readily understood how serious a case of diphtheria would be to certain isolated groups in the military forces, but I don't think anyone would recommend the immunization of the entire Army against diphtheria because it is not a frequent disease of adults. The immunization procedure has therefore been confined to children.

The use of tetanus toxoid in children is an excellent procedure provided your records are good. I don't know of any place outside the office of the better type of pediatrician where the records are sufficiently accurate to justify the use of tetanus toxoid in immunizing children. You can readily understand what would happen when the child comes into the doctor's office with a nail in his foot, and the doctor says, "Well, I suppose I had better give this boy a dose of tetanus antitoxin." Then the mother speaks up and says, "Yes, but Johnnie was immunized against tetanus." "Well, are you sure?" Then she isn't sure whether it was tetanus or diphtheria, but unless the physician has positive information, tetanus antitoxin has to be given.

The military forces will know that every man has been immunized, and under those circumstances there is no question about the use of tetanus antitoxin prophylactics. But in the civilian population it is different. If the proper records could be kept, I would be in favor of the immunization of the entire population, particularly in rural sections, against tetanus.

As to the control of undulant fever, I don't think of any plan aside from the pasteurization of milk. That offers the best hope for control of the disease in the general population.

(Dr. Godfrey of New York asks for information on three topics - means of guarding against the epidemicity of measles during early stages of mobilization; methods by which non-immune troops from rural districts may be fed gradually into relatively immune organizations; plans for preventing meningitis outbreaks. Answers were deferred until afternoon when Colonel Spruit or Colonel Hillman would be there.)

(Dr. Williams of Tennessee asks Dr. Harrison the methods of typhoid immunization and whether the subcutaneous method has been abandoned.)

DR. HARRISON: I can only repeat what is being done in the Army. They give 1/2 cc. for the first dose; a week later they give 1 cc; then a week later another cc. The vaccine consists of typhoid, para A. and para B. The proportions are, 1,000 million typhoid bacilli; 250 million para A and 250 million para B. The Army has been active in devising a simpler method for the administration of secondary immunizations. I am not prepared to say whether the Army expects to use this method in the military forces. (Dr. Riley of Maryland suggests that Commander Stephenson should tell Dr. Godfrey what the Navy is planning to do about the control of communicable diseases.)

COMMANDER STEPHENSON: (Abstract) It is our plan to bring people in increments that we may be able to handle them in the training stations. We had a disastrous epidemic of cerebrospinal fever in the Great Lakes training station during the World War. We must have the best men available on communicable disease. We have set up quarantine camps so that new groups are not thrown in all at once.

Three weeks is the period of quarantine.

We are trying to devise a schedule of training that will not over-fatigue the individual before he is properly seasoned. We intend to keep them in training at least four months because we can't make a sailor under that time. We expect to assign them to ships at sea in small units so as to cut down on the number of possible carriers.

It is our plan to place under special observation those people from areas in which measles or influenza has occurred recently in epidemic form. That is about the best we can do to limit the spread of these two diseases. We hope to get in the people needed now before cold weather when we would be more apt to have an influenza epidemic.

DR. L. L. WILLIAMS: I would like to ask if there is any definite information on typhus fever vaccine?

DR. DYER: (Abstract) Several typhus vaccines have been put forward in the last few years, but the great difficulty with most of them is in manufacturing. The louse vaccine of Wiegel is extraordinarily difficult to manufacture and takes about 100 lice to furnish vaccine for one man. That is the only one which has been reasonably tried on human beings, and it will protect human beings. But we might as well cross it off the list so far as protection of troops or civilian population in a typhus epidemic is concerned because of difficulty in manufacture.

A vaccine made by Blanc & Laigret is being used rather extensively in North Africa. This uses a live virus. They have had some difficulties with it, and it killed some people down in Chile

two or three years ago. But any vaccine that utilizes a live virus - we can say without going into discussion - should not be considered satisfactory.

Two vaccines have been produced in this country, one by Cox and the other by Zinsser which can be manufactured on a large scale. The Cox vaccine is much easier to manufacture and produces as good an immunity as the Zinsser vaccine. Neither has been tried on human beings at all adequately. The Cox is the only vaccine in sight which can be readily manufactured on a large enough scale to make it useful to control the epidemic form of typhus fever. The tests in animals indicate that it may be expected to be efficacious in human beings. We have on hand now enough to vaccinate 50 or 60 thousand people. Undoubtedly, from all indications, we shall have plenty of chance to test it adequately some place in the world in the next few months.

DR. PARRAN: (After asking for further questions) Mr. Aubrey Williams, Administrator of the National Youth Administration, will tell you something of the health and medical care problems of that organization.

HEALTH SERVICES FOR ENROLLEES
OF THE NATIONAL YOUTH ADMINISTRATION

MR. WILLIAMS: Dr. Parran, ladies and gentlemen, - We have employed in the National Youth Administration at the present time on out-of-school projects around 240,000 boys and girls, young people between the ages of 17 and 25. In a year's time we will employ something approximating 550,000 to 600,000 young people of this age group on projects of this class.

In addition to that group of young people, there are employed in colleges and high schools another 450,000 to 500,000 young people on various kinds of work projects so that in a given year there will go through the various parts of our program something close to a million young people, boys and girls in that age group.

Not very long ago Dr. Parran made a statement which I think was a true statement - that we had not done a good job with respect to the health of these young people who came to work for us in one way or other in the National Youth Administration.

At the time I was a bit taken aback by Dr. Parran's blunt way of saying it, but I said to our people, "I am afraid that it is the truth." We called several of our officials into conference and we finally said to Dr. Parran, "All right, we agree that what you said is true; now you come in and help us". We are here this morning as a result of a train of circumstances which I shall enumerate.

First of all, Dr. Parran assigned to us Dr. Rice to help work out a national program that would at least begin with all the young

people on the out-of-school projects and to provide these young people with an adequate health program insofar as resources permit. To be effective, the program must enlist the cooperation of State health groups, State health departments, and municipal and county health departments, and local private medical practitioners.

We have had some good work done, which I know Dr. Parran is glad to recognize wherever he can find it, and we have found that that work paid very great dividends to the young people. For example, in Minnesota we found that 28 percent of the young people coming to us were unemployable in terms of the personnel standards of industry - 28 out of every 100 coming to us in that age group.

By a medical care program, reparative and corrective work, adequate feeding and dieting, we were able to bring that 28 percent down in a year's time to 8 percent.

But, unfortunately, our program has been very spotty. We have no adequate statistics with reference to the condition of all young people coming to us. We have not been able to pay for medical care for young people. As a matter of fact, our Act does not give us the full right to spend money for medical care, and we have to get it in a sort of bootleg fashion.

We are not able, for example, to pay for hospital care and we have to get that in some manner or other. We can however employ physicians on a straight salary basis for our administrative or project staffs, or we can employ them on a per diem, so much per day.

Despite these handicaps, some medical facilities have been established, but on the whole our program is sadly deficient and is in need of much improvement.

Now I would like to give you a very brief description of the work. I shall be brief, because I am anxious for you to consider this topic and for Dr. Rice to discuss practical ways in which you can help us.

Our out-of-school work divides itself into two large groupings. We have projects in every county of the United States, except 168. This work is organized in projects of variable size which number close to 20,000. There is an average of some 20 youths to a project, though the number on a project may be as small as five or six in some very sparsely settled places like Wyoming or Arizona. Under the Comptroller General we have to work out the project on the basis of the physical location rather than the number in the project.

On these projects they do every kind of work - physical, clerical, service work. About 80 percent of the projects are of a manual and mechanical character. The enrollees are divided about 45 percent girls and 55 percent boys. The age grouping runs about 25 percent above 21 years of age and 75 percent below.

In addition to these local projects, we have some 600 resident congregate centers, and in these there are approximately 40,000 young people. They may number as high as 500. At the other extreme are part-time resident centers of 25 or 30. In all cases, even though the youths only stay 15 days, they spend 24 hours each day at the resident work center, and we have complete control of them during the whole 24 hours.

In the case of the out-of-school, non-resident projects, the youths work about an average of 70 hours a month and live at home. We have little contact with them when they are not at work outside of a

related training program which we tried to establish for them in vocational or other types of schools and such types of recreation as we can develop. Their time off the project is spent about as they desire, and we have very little or no relationship to it.

We require something in the form of a medical certification by some local physician that the youth is able to do the work for which he is applying. In all too many cases, though, it isn't worth the paper it is written on. It takes a courageous physician to say to a boy, "You can't do that work, and I will not give you a certificate." Our only valid basis for knowing whether the child is capable of performing heavy work, or light work, or what not, is a complete medical examination after he gets to us, and we have to give him one.

We pay these youngsters, on the out-of-school non-resident projects, an average of $18.00 a month. We pay those in resident work centers an average of $10.00 a month and maintenance which amounts to about $35.00 a month. We have long waiting lists of these young people who have had a medical examination and have been certified to us as eligible for our projects. The number at the present time is something over 400,000 who are waiting an assignment on our known list. I should add that as a condition of employment and certification they must come from low income groups, though we try to be liberal on that point. Occasionally young people whose fathers have an income of $2,000 - some as high as $2,500 - are on our projects. By and large, though, the great bulk of them come from low income groups. The average family income of the parents of our young people runs something under $600 a year.

Thus far I have talked mainly about the out-of-school program, but I should mention also our work with the high school group and especially the college group.

Around 350,000 come into the high school group every year, and they represent to my mind a potential problem group of the greatest importance. They are youngsters that have dropped out of school for one reason or another, but largely for financial reasons. Their parents cannot buy clothing for them nor provide carfare or spending money. The child gets to a point where he simply says, "I will not go to school."

The families of these children showed an income average last year of $560 - that's the total for the whole country. It means that a great number of these children come from families getting $300 a year - some $400 a year and others as high as $700 or $800. You know and I know that unless there is provided for these children some positive opportunities they will constitute the group from which will come most of your problems in the future in all categories and in all disciplines.

In the college group are some 150,000. The average income of their families last year was $1129. From the standpoint of mentality, they are a superior group, but their families do not have the means to provide medical care along with other things such as anyone needs. A thrilling circumstance is that this group of youngsters in the last six years have consistently shown higher scholastic records than any and all other groups in American colleges. They have been in the upper quartile in every instance and have achieved a scholastic rating topping all of the other people in our higher institutions of learning. They deserve anything we have to give them.

Well, that's about the story. We are prepared, under the guidance of Dr. Parran and Dr. Rice, to spend some money, but for every dollar we take to do this we have to drop some other element of the program. What we have planned means dropping quite a large number of young people, but we believe that we shall do a better job in the future by all of them than we have done up to now.

Now you people know what we are up against. You know how difficult it is to get hospital care in the case of people in the needy group. I don't have to say anything about that to you; you know it better than I do. You know what we are up against in getting medical examinations or medical care in a group like ours. You know all of these problems.

We have worked out a plan predicated upon a great deal of help from you, and I am here really as a part of an effort to ask you to see the importance of this entire group of youth. I don't think I need to plead that; I am sure you realize it; I see Dr. Harper sitting here, and as I talk about asking him to do more than he is doing now, I wonder how he would crowd it into the day he already has up there in Wisconsin. I used to barge in on his time, and I know how much he has to do and everybody else on his staff. The health problem of these young people is a heavy responsibility. The statistics given me by Dr. Rice, indicating the health needs among young people in low income groups, brought this thing home to me in a manner, I confess to you, that I had not realized before.

I have seen many of these young people on our projects come to us pale and half-starved, and have wondered whether they would ever overcome it or not. I have seen these same young people, under

proper feeding and proper medical care, come right along in a period of five or six months and appear to be as healthy as anybody could ask to be. I wish that we could do it for every person who comes to us. I think this, Dr. Parran - the present situation is going to lend significance and importance to the thing you are striving to do, and will give us more of an opportunity to get funds to do what needs to be done in a manner that we haven't been able to reach up to this moment. We confess our sins of the past and are anxious to make atonement in the future, and are asking all of you in the States to join with us in helping the people we are going to employ. We trust you will help our people in the States organize this thing and guide it around the difficulties so that these young people can get the medical attention and treatment that they need and by rights should have.

DR. RICE: Members of the Conference: The health program for the NYA has a particular significance right now since these youth are being gathered together and many of them exposed to different types of work experience. From that, many of them will be going into industries of different types, provided they can get in, and many of the boys will be subjected to the test as to whether they can qualify for military service.

This program, as we have thought of it, has three points: First, physical appraisal, by means of a technically competent physician, of every youth assigned to the NYA out-of-school work program; second, the rehabilitation of youth employed on resident projects through the use of health and medical service facilities provided directly by the National Youth Administration, using the local medical profession; and the follow-up service for youth in need of care who are employed on

non-resident projects through maximum utilization of local facilities and resources; and third, the promotion of the health of all youth through such means as environmental sanitation, health education and physical training, with a view to establishing the highest standard of physical fitness attainable.

We hear a good deal right now about physical fitness and how to attain it. I think as we get into that area it is particularly desirable that this program be identified as closely as possible with proper medical leadership in the States and proper public health leadership to avoid some dangers that might arise, such as putting emphasis on the wrong place or taking a wrong approach as to how you might attain physical fitness.

It has been thought advisable, in the State NYA set-ups, to (1) establish the position of a State health consultant - a part-time physician on the staff of the State NYA administrator to give technical supervision to the program; and (2) establish a State-wide health project under the supervision, at least in most States, of a non-medical person who has had a background of experience in health work or in working with health agencies, the medical profession, and so forth.

Through this set-up, as I have briefly described it, we hope to give better supervision to the medical service provided in these resident centers of the National Youth Administration where these youth live together and work together, and where local physicians are employed to render medical service. Through the health project we hope to give some supervision to resident centers, to secure a better type of physical examination, so that we may know something about what we are finding through these physical examinations, and also to set up some machinery for follow-ups on indicated rehabilitation.

Now, I come down specifically to what we might ask the State health officers to attempt to do. First, we are advising the State administrators to seek co-sponsorship from State health departments for this State-wide health program; second, your advice in many States will be asked concerning the person to head this activity - I mean not only the health consultant but the person to head the State-wide project. We trust that you will give most serious thought to this.

Next, we hope to use your sanitation personnel more consistently than we have in the past to obtain the best sanitary supervision for these resident centers.

Then there is a possibility, I think, of health departments utilizing these youth in special studies and other types of project work. There is the possibility of joint dental programs, which have been developed in two or three States. I think NYA has been very helpful in constructing dental trailers for health departments, and this activity along with others might be extended.

And the last point - we hope to establish some advisory committees in connection with this health program in each State, and naturally representation from the health departments will be asked.

I wish to leave with you the thought that this program, I believe, deserves more than just a passing interest on your part. I would like to see you give it the greatest consideration and the deepest thought you can because I am sure that in nine cases out of ten you will be asked to take a very active part in attempting to put it into operation.

DR. PARRAN: Thank you very much, Dr. Rice. (Dr. Parran added to Dr. Rice's remarks that District Directors and other officers of the

Public Health Service now assigned to State health departments will be available for consultation in working out this program. He stressed also Dr. Rice's mention of the dental problem and pointed out the need in the program for the State dental societies and local dental societies as well as the State and local medical profession.)

DR. CLEERE: (Colorado) Dr. Rice, what do you mean by State health department co-sponsorship of State-wide projects?

DR. RICE: (Abstract) Some formal arrangement by which the health department will give its blessing to this work and actively enter into it. (Dr. McKay of Utah brings up the necessity for having a medical person in charge.) We have suggested a part-time health consultant to head this work and hope that person will be an outstanding man in the medical profession. Under him we might have a non-medical person to supervise the work. (Dr. Parran brings in the idea that this device is suggested for the smaller States to keep down overhead.)

MR. WILLIAMS: (Answering Dr. Carlson. This is an abstract of his answer.) Dr. Carlson, I agree completely with you with respect to first, the need for this sort of thing for the whole population, or at least 85 to 90 percent of it, and, second, that the college group is in the least need for any special effort on our part. As a matter of fact, we haven't yet included high school groups in our planning. Up to now we have been thinking entirely of those outside of high school and of college. If we do anything later about the high school or college groups, it will be under arrangements by which all the students may participate on the same basis.

Amplifying Dr. Rice's remarks, the project is a means by which we are able to secure funds to employ personnel that we are not able to employ on our administrative payroll. By means of a project which you would sponsor, we could employ people of a supervisory character who would do the work at the county level or the area level of seven or eight counties and be paid for it on the project. The project would cover the whole State, and you would assist in the selection of the State man.

(Dr. Munger raises the question of provision for hospital care in Dr. Rice's program. Dr. Rice answers that they are trying to get such a provision written into the appropriation act. Failing that, they might establish resident centers tied in with going group hospital schemes. As a third possibility, they might set up one of these local projects in connection with a hospital. Dr. Parran adds that the answer includes a "Yes" to Dr. Munger's suggestion for cooperation with the hospital associations.)

DR. BAKER (Alabama): (Abstract) Our subject matter includes a segment of population most important to industry and to the military services. Their medical and hospital care, including proper physical examination, is consequently of great importance. There seem to be hampering influences when it comes to setting up a plan for providing the proper physical examination, medical care, and hospital care.

I do not see how this agency can expect the State health officers to give you anything adequate unless you provide some machinery for the medical and hospital services. Even though I might have a medical consultant aid the setup in my State, most of our projects are on the small plan that Mr. Williams referred to. The big centers scarcely

exist. At the same time, we have aided tremendously in these small projects in trying to get the youths physically examined and that sort of thing. Just the other day one of my county health officers wrote me that he was giving practically one-third of his time to examination of these and others.

Now, if the poor busy health officer or the doctor gives only a lick and a promise, as Mr. Williams said, the plan is scarcely worth the paper upon which it is written. We must try to think in terms of developing a program. The medical profession should not be totally left out of any problem so expansive and important as this. (Dr. Parran comments that he laid this problem in a preliminary way before a meeting of the Committee on Medical Preparedness of the American Medical Association in Chicago and calls upon Dr. Leland.)

DR. LELAND: (Abstract) Physicians of the United States are undoubtedly willing, as they always have been, to render patriotic service. They cannot out of their own resources maintain acceptable standards on subjects and on projects for which the cost should be provided from some regular source. In developing the program under discussion, we certainly need a definite appropriation to support our efforts to give a high grade medical service. (Dr. Grayson of Arkansas reports that the N.Y.A. work is popular in his State and is going along smoothly. Whenever health officers feel that they can interpret any of the services as public health, they are glad to cooperate.)

DR. PARRAN: (Says that the morning's subject for discussion will be referred to the Committee on Medical Care for recommendation back to the Conference the second day. He welcomes guests not previously mentioned - Dr. Seeger of the American Medical Association's Council on

Industrial Medicine; Dr. Selby, consultant to the Public Health Service in industrial hygiene; Miss Beard of the Red Cross; three new health officers, Dr. Brown of California, Dr. Cameron of Delaware, and Dr. Musser of Louisiana. Announcements followed by Dr. Parran and Dr. Mountin. The Conference adjourned at 12:20 until 2:00 p.m. of the same day.)

MONDAY AFTERNOON SESSION

Announcements were made by chairmen of the various committees as to the time and place of meeting following the day's conference.

DR. DRAPER: (Presiding temporarily) We have on the program this afternoon perhaps the most important subject that we shall have to consider. Certainly it is one of the most important. Most of you can remember the extra-cantonment work upon which the public health authorities were engaged during the last war. It was a pretty satisfactory kind of an arrangement for that time, but there are new problems to be met and new methods of handling will be necessary. I hope our organization and our methods will prove even better than in the previous war.

This discussion will be opened by Dr. J. W. Mountin.

HEALTH ADMINISTRATIVE PROBLEMS ARISING OUT OF MOBILIZATION

DR. MOUNTIN: Members of the Conference and guests, - I have been scheduled to open the symposium this afternoon on the health administrative problems that we may confidently expect will arise from mobilization. The words "administrative problems" were chosen simply because we wish to feature the administrative considerations involved much more than the detailed professional content of the program. Later I shall enumerate the items that are likely to constitute the program, but the more pressing questions relate to execution of whatever program is adopted. What parts are the Federal, State, and local agencies going to take? How is each to articulate or

integrate its activities with the other? These may become rather delicate problems in governmental relations and should be straightened out so far as possible in advance of actually undertaking the work in the field.

Mobilization of this nation for total defense will involve the bringing together of two groups of people; the soldiers and the sailors who actually have been inducted into the armed forces, and persons engaged in war industries. Industrial production in general will be stepped up by the preparedness program, but I refer more particularly to those so-called war industries which I realize are rather difficult to define.

It has been estimated that for one soldier who arrives at camp at least one civilian will follow, and that each added industrial worker will attract to the locality perhaps two additional persons. Some of the increase in population will occur at existing industrial centers, but I think we are more concerned with the rapid increase of population where formerly there were relatively few inhabitants.

I shall only mention the public health problems we are likely to encounter and trust that the details will be brought out in the discussion.

First of all, we shall have a problem in housing. I am not speaking now of housing the soldier who is on the actual military reservation. That is a problem for the Army and the Navy and one with which this group is not especially concerned. Health authorities cannot ignore general housing since some very serious health and sanitation problems will grow out of the housing situation if it is neglected. Representatives from the Federal housing agencies are here to discuss the special provisions contemplated.

The next major item is water supply. Municipal water plants as a rule were built to accommodate fixed populations, and in many plants there is little, if any, reserve capacity. Now the population of these communities is to be increased by 50 percent or 75 percent and in some instances doubled. New sources of supply must be developed and many treatment plants enlarged. Meanwhile it may be necessary to increase the operating load on the plants already in use.

There will be a problem of sewage disposal. Some of the discharge will be of the water-carriage type that may be taken up by the regular sewer system. Not infrequently it will be necessary to develop new sewerage systems or perhaps greatly extend pre-existing ones. In either case additional facilities for treatment of affluent are called for. Always there is the problem of surface pollution especially where sewerage systems are not feasible.

In speaking of sewage, I have in mind also industrial wastes. Let me remind you that health authorities have discussed at length during recent years the control of pollution of various types. It seems to me government ought to set an example by instituting care of both domestic and industrial wastes that flow from establishments it is sponsoring.

The demand for fluid milk is likely to be far in excess of what might be obtained from the local milk shed. The output of existing dairies can be increased to some extent, but I anticipate that milk will be brought in from areas beyond the regular milk shed of the locality, thus necessitating an increase in control measures and the entailed costs.

Of course there will be the increased job of sanitation in food-dispensing establishments, soda fountains, and I would by no means forget the bars. Bars perhaps are the most neglected of all in respect to sanitation. I am told that alcoholic beverages do not sterilize the glasses, as is often stated.

Most of you remember the conditions that developed around the training camps in 1917 and 1918 - the hot dog stands, the various games of chance, amusements of all types, and no end of fly-by-night developments designed primarily to absorb the military payroll. I am of the opinion that such undesirable enterprises cannot be controlled except by a rigid licensing system.

Certain communicable diseases have always been associated with mobilization. These were described this morning by Dr. Harrison, and I will not go into that subject. Furthermore, the venereal diseases will be taken up by Dr. Vonderlehr.

Personnel and facilities for furnishing medical care in the localities we are considering are geared to the needs of the normal resident population. These resources will be overtaxed also by the influx of people. To make the situation worse, many physicians, dentists, and nurses will have been called for military service.

It is true that most of the people who represent additions to the population will be actually employed or in families of employed workers; hence they may be expected to take care of their ordinary material wants, including the medical service, on the usual basis. In addition there will be an unemployed population since many of the so-called transients, who formerly were attracted to other places because of climate or economic opportunities, will now be attracted

to military camps and industrial centers. All newly arrived persons will not acquire legal residence until they have been in the community at least a year, and in some States, depending upon the settlement laws and the social practices of community agencies, four or five years. As a result, they will not be eligible for many of the social benefits that are contingent on having legal residence.

The problems just enumerated are in a broad sense those which might be anticipated. I shall not go into the content of a program designed to meet the situation. Most of you, as I have said, have a pretty fair idea as to what should be done. If not, your questions can be answered in the general discussion. Later on however I shall have a few suggestions with respect to public health organization.

There are several geographical and jurisdictional areas that we must have in mind in relation to military mobilization. The military reservation where the camp is located, together with the training grounds, rifle range, etcetera are immediately attached to the camp and of course are under the control of military authorities. Of primary concern to health officers will be those nearby cities to which people come for trade or amusement and more especially the area adjacent to the camp which is usually county territory. As you all know, city laws and ordinances are quite specific, and the machinery for their enforcement is fairly well organized, although it doesn't always function too well. On the other hand, legal authority in the county is very often indefinite, and the local health officials have to rely very largely on State laws and regulations of State health authorities. I am told that only a part of the training will be done at the camps and the attached drilling grounds. Large maneuvers are contemplated that will involve

inter-divisional movements of troops and movements from one corps area into another. In other words, there will be movements beyond county lines and even beyond State lines. There must be an orderly plan for coordinating the activities of different health organizations so that the health of troops may be protected as they transfer from one health jurisdiction to another.

Prior to the World War no experience had been accumulated in regard to problems such as we are discussing. As you all know, what we did in 1917 and 1918 represented to a great extent afterthoughts. Most of the health and sanitation units were set up after the camps had been established, and then we had a problem of correcting conditions that could have been prevented had there been somebody on the job thinking of all these situations and doing something about them before the troops actually came in.

The U. S. Public Health Service at that time assumed a very definite responsibility and quite an aggressive part in the whole program. Since then State organizations have developed to the point where they are far beyond what they were in those days. In many military and industrial mobilization areas, efficient city health departments now exist, and in a number of such areas county health departments also are reasonably well organized. Nevertheless I anticipate that even the better organized departments should be supplemented since they will be confronted with a very much increased burden. After the locality has done all it can, the first source for additional help of course is the State. It seems to me that there the U. S. Public Health Service has a responsibility also since activities for the most part of Federal

origin will give rise to situations which cannot be handled satisfactorily by State and local authorities, and, after all, defense is primarily a national function.

The relationship between the different elements of government and the degree of responsibility to be assumed by each will need to be modified from what it was during the last World War since State and local health organizations are much better developed; furthermore, the demands will be different. What are these problems of relationship? I will just enumerate the more important ones and have you add others in discussion or elaborate on those that I mention.

Questions relating to legal authority and law enforcement are certain to arise. Are your city ordinances adequate as to coverage and specificity? What authority is vested in the county health officer with regard to health matters? Does the county have ordaining powers, and are such powers exercised? Are the State codes adequate and what is the enforcement machinery? Is additional State authority needed? Are your laws drawn according to existing political units, or can special health districts be formed to meet special conditions?

The general subject of law enforcement introduces a definite challenge to our form of government. Briefly it is this: Can the duly constituted civil authorities exert the necessary degree of control over conditions that are bound to arise so that we may have a decent and acceptable standard of health and sanitation, or will it be necessary to establish military zones around these camps? These questions should be discussed today; if actual performance in the field is not satisfactory, the same questions may be of serious concern later on.

If the U.S. Public Health Service assigns personnel to communities of military or industrial concentration, what should their relationship be to the State health authorities, to the local authorities, and to the military? I am speaking now of professional workers in addition to those that would normally be employed through local appropriations, through your regular State appropriations, or through grants under the Social Security Act and the Venereal Disease Control Act. Would the assignment of officers from the U. S. Public Health Service to headquarters of Army corps areas and of naval districts facilitate a working relationship between the military and the civil health authorities?

We would like to have you consider seriously the points that I have raised and related ones that may have arisen in your minds. We especially hope the Committee on Health Administrative Problems Arising out of Mobilization will make very definite recommendations as to how the desired results might be accomplished. The U. S. Public Health Service has under consideration for itself a tentative program which I shall outline in part. Dr. Vonderlehr will then add his plan with respect to venereal diseases.

As a preliminary step, we propose making a survey of some 40 areas where there are going to be large military concentrations. Later these surveys will be extended to additional industrial communities and to military areas where the number of troops is going to be relatively few. In making these surveys, members of the U. S. Public Health Service are to be accompanied by representatives of the State and local health organizations. The initial survey of each area, which should be accomplished in a few days, is to include a

sketch map of the area, a description of each community, pertinent facts concerning health and medical facilities, an appraisal of outstanding health problems, and, finally, suggestions as to corrective measures and ways in which local facilities should be supplemented.

We have thought of assigning permanently to each major concentration a medical officer, an engineer, and perhaps a nurse from the U.S. Public Health Service. This nucleus of personnel may be expanded as needs indicate and funds permit. We hope WPA labor projects may be authorized for drainage, privy construction, and other items of sanitation.

According to our information, a significant part of the military training will also be done on an army corps basis; hence, it will be necessary to have mobile personnel that may move from one section to another as the needs vary to work on problems which are State-wide or interstate rather than local. By suitable liaison arrangements with headquarters of Army corps areas and naval districts, we hope to anticipate the needs of military authorities and to facilitate operations by the several civil agencies having responsibilities for different parts of the proposed program.

At this moment the U. S. Public Health Service has no specific appropriation for implementing an augmented health program in relation to preparedness. We are hoping that additional funds may become available through special appropriations by the Congress. Let me remind you, however, that all States derive funds from the U. S. Public Health Service under Title VI of the Social Security Act and the Venereal Disease Control Act. I realize you have covered practically all these funds, together with those derived from State appropriations, by budgets,

but some of these budgets were drawn for health units and enterprises of various types which you expect to launch. All of these projects have not as yet materialized, and some may be cancelled. Funds thus released and unexpended balances might be re-budgeted for work in areas of industrial and military concentration.

Additional funds should be found in the localities where military and industrial developments are taking place. Some communities benefit from expanded payrolls and from new capital investments. Of course, these communities will have many demands to meet, but at least a small part of their new wealth should be devoted to health protection.

I shall be glad, if you wish, to continue the discussion later after the other three speakers listed for this symposium have presented their points.

DR. DRAPER: Thank you, Dr. Mountin. If it is agreeable to the Conference, I think it might be better to have all of the presentations first, and then discuss them all together.

Dr. Vonderlehr.

DR. VONDERLEHR: Dr. Draper, ladies and gentlemen, - About four months ago at the meeting here in Washington, we discussed a statement of policy, which was tentative at that time, with reference to the control of venereal diseases among civilians living in areas where armed forces or defense industries are concentrated. Since that time both the Secretary of War and the Secretary of the Navy have approved this statement of policy, so the statement which was endorsed by the Conference of State and Territorial Health Officers is final and will be published within a few days.

During the past spring, public health officers were stationed in maneuver areas to study the best measures for controlling the venereal diseases in extra-cantonment zones and to get some practice in their enforcement. We find that the great need is for concerted efforts in the enforcement of certain measures.

I know of no public health problem in which the health of the Army and Navy and the health of the civilian is so closely related as is the case with the venereal diseases. The course of infection for either syphilis or gonorrhea is from civilian population through armed population and back to civilian population in an endless chain. It is obvious therefore that we need to find as soon as possible all of the people who are infected with syphilis and gonorrhea in a communicable stage. Dr. Wenger will talk tomorrow about the possibility of applying a serologic dragnet, not only for the men who will be chosen for the Army but also for the larger group, on a voluntary basis, who will register under the draft act.

Today I wish to emphasize particularly the need for intensive application of epidemiologic principles for the control of syphilis and gonorrhea. I feel quite definitely that we should apply case-finding measures for syphilis and gonorrhea on the same basis that we do in communicable diseases such as typhoid fever. If typhoid fever should break out in an area surrounding a camp of soldiers or among industrial employees, every effort would be made to find all of the contacts of the people who are infected.

I am sorry to say, however, that in the control of syphilis and gonorrhea this is not the universal practice in this country; in many places such case-finding work is seriously neglected.

Another important item is the repression of prostitution. Health officers should encourage and foster in every possible way the development by police and other authorities of measures for the repression of prostitution.

I said a few minutes ago that in developing our plans for national defense during the past summer we had been able to try out different practices in several areas. I should like to ask that Dr. Harper tell of his splendid work in Wisconsin during the past summer in applying repressive measures to prostitution in connection with the maneuvers in his State.

In one or two other States the measures applied in controlling the number of contacts have been very good; in some the work has not been so good.

The problem of gonorrhea stands about where it did three or four months ago; if anything, we have even more evidence pointing to the probabilities of success in the control of gonorrhea through the use of the newer sulfonamide compounds. All of the work which has been completed since I last had the opportunity to talk with you indicates that the newer sulfonamide compounds, particularly sulfathiazole and sulfapyridine, will cure from 80 to 90 percent of the patients with acute gonorrhea within 10 days to two weeks, and in most cases the symptoms disappear within two or three days.

Another problem that has been controversial and difficult of application in civilian populations in the past is that of prophylaxis. I should like to talk about that for a few moments because it is of considerable importance in the control of venereal diseases.

Heretofore we haven't known just how effective prophylaxis might be. I think all of us realize, however, that in a controlled group, such as the Army or Navy, prophylaxis is very effective. Several months ago a special committee was appointed by the American Social Hygiene Association and United States Public Health Service to prepare recommendations with reference to the use of chemical and mechanical prophylaxis in the prevention of syphilis and gonorrhea.

If I may, I would like to read briefly from the Committee's report which will be published in the Journal of the American Medical Association and in Venereal Disease Information.

"This Committee was requested to review the history and present status of prevention of syphilis and gonorrhea by chemical and mechanical means and to make such recommendations as seem desirable at the present time. The Committee has had several meetings in New York and Washington, has reviewed the published material dealing with its field of study and has heard the testimony from representative members of the Army Medical Corp, the Navy Medical Corps, the United States Public Health Service, the State health officers, the medical profession, representatives of Negro medical and public health groups, medical schools, voluntary health organizations, religious organizations, educational organizations, social welfare agencies, and civic organizations.

"The Committee is cognizant of the fact that chemical and mechanical prophylaxis is only one phase of preventive medicine. Prevention of syphilis and gonorrhea by chemical or mechanical means is supplementary to and not a substitute for the prophylaxis of these diseases by educational measures which employ ethical and religious motives. Nor does chemical or mechanical prophylaxis justify any

relaxation of efforts to reduce to a minimum exposure to infection by discouragement of prostitution and other forms of sexual promiscuity. In the case of syphilis and gonorrhea, as with other communicable diseases, the best and surest method of prevention of infection is the avoidance of exposure. Educational, religious, sociologic, and legal activities which tend to prevent exposure to infection are of great importance. At the same time, however, the committee is fully aware of the fact that sexual promiscuity is a very important factor in their spread. To decrease the number of carriers in this great group of men and women, chemical and mechanical prophylaxis is necessary and hence is complementary to educational measures.

"The place of chemical and mechanical preventive measures is at the point where educational, religious, social, and legal efforts have failed to prevent exposure to infection. At that point, preventive medicine offers reasonably efficient methods of prevention which, if correctly applied, will in the majority of instances prevent the exposed person from becoming infected and from becoming a possible source of infection to those with whom he may later have contact. Thus, not only one individual but that individual's family and community may be relieved of the burdens - medical, social and economic - of syphilis and gonorrhea. Chemical and mechanical prophylaxis will preserve the efficiency of men required for defense or service of the nation in time of peace or of war. This being the case, it becomes the moral obligation of sanitarians to urge the wide dissemination of all available knowledge regarding such procedures."

The Committee then proceeds to give some definite instructions with reference to chemical and mechanical prophylaxis and goes on with the report.

"The Committee emphasizes the fact that the above suggested preventive measures are not 100 percent successful. Their efficacy depends first on the reliability of the materials used. A defective condom does not give the same degree of protection as a sound article. The protein silver solution or the calomel may not be of the proper strength or may be inactive. Second, washing and application of chemicals may be delayed too long after exposure. Drunkenness may prevent correct application of any of these methods. It may be stated, however, that when these methods are followed correctly, they will in the majority of instances prevent infection with syphilis and gonorrhea.

"The medical profession and public health agencies, both official and voluntary, bear a heavy responsibility in the matter of the prevention of syphilis and gonorrhea by chemical and mechanical means. Since these methods are efficacious, they would, if widely understood and correctly utilized by those who expose themselves to the danger of infection, result in a great diminution of syphilis and gonorrhea and would thereby greatly reduce personal, family and community disaster and the economic losses that result from these infections.

"It seems clear, therefore, that health education with regard to syphilis and gonorrhea should include simple, frank and explicit directions as to chemical and mechanical prophylaxis. This information should be included in its proper setting and in appropriate language.

"It seems apparent also that in addition to instructing the public regarding this preventive medical method, civilian, military and naval, medical and health authorities have the obligation to provide the facilities through which chemical and mechanical prophylaxis

may be made available when and where needed. The authorities also have the responsibility for preventing the commission of fraud through the sale of worthless products to the public for the prevention of these diseases.

"Finally, the Committee is impressed with the fact that there are many unsolved problems, some of which are administrative, within the scope of chemical and mechanical prophylaxis and the provision of adequate facilities for these procedures. It is considered that research in this field should be continued."

Only one more word and that is with reference to the training of personnel under the defense program. We are continuing, as all the State health officers know, the provisions for training in the various universities throughout the country where postgraduate courses have been available for the last two or three years.

We are planning for the first time an intensive course of training this fall at the Public Health Service clinic at Hot Springs. This is a short course primarily for health officers who are experienced in public health work but who have had little experience in the clinical management of syphilis and gonorrhea. It is also a short course for clinicians and physicians engaged in private practice. We believe that if it becomes necessary we can instruct at Hot Springs several hundred trainees a year.

I thank you very much.

DR. DRAPER: Colonel C. C. Hillman of the Surgeon General's office of the Army is here and will tell us something about what the Army is looking to the public health authorities of the country to give in the process of mobilization. Colonel Hillman.

COLONEL HILLMAN: Dr. Draper, ladies and gentlemen,—I believe that it requires no argument to support the thought that health matters in time of mobilization are responsibilities not only of the military health agencies but of the national and local health departments as well.

The whole problem is closely interrelated. The military health official has his health problems that pertain to his camp; the local, State, and national health officials have their problems related to the areas outside of the camps and stations, but the successful work in either area is dependent upon the cooperation and the success of the fellow workers in the opposite field.

Dr. Mountin reviewed very briefly the problems that are met by the extra-cantonment health worker. He mentioned the matter of the water supply, sewage disposal, food, eating establishments, drinking places, and we might also have mentioned, I think, amusement places. I would also like to add to Dr. Mountin's suggestion the control of insect pests, that is, in the South, mosquito control and control of flies especially.

Our military camps are usually located adjacent to cities of small or moderate size. This is because, if for no other reason, the areas around the larger cities are not open; they are expensive to rent or to buy, and they do not furnish the freedom of movement that troops need in their training.

In a mobilization camp we have a peculiar situation so far as personnel is concerned. We have young men brought from their homes, in many cases homes of great comfort, and in the most cases where they

have more comfort than they can have in camp. They are brought to camps and are placed in tents or quickly constructed barracks where a minimum space is allowed; they are crowded rather closely in their mess; they are closely associated in their work; and they are again closely associated in their recreation. After their work is over they tend to assemble in the recreation rooms, especially under conditions of inclement weather, and they go to the local camp movie or to the neighboring city theatre. So the men coming to military camps and stations are very much more crowded so far as their personal associations are concerned. Of course, these things are conducive to the spread of contagious diseases and to the increased virulence of such conditions.

That presents a problem, in turn, for the local health officer because epidemics will appear in camp and he has the problem of protecting his surrounding civil community.

Dr. Mountin brought up the question of maneuver areas.

The maneuver areas that the Army has recently used and which we will no doubt find around newly established camps are wide expanses, thinly populated usually, and with conditions of sanitation and health control not of a very high standard.

The mushroom growths of hot dog stands and drinking places and all those things which come with concentrations of people, temporary concentrations, will be accentuated to a great extent. That presents one of our greatest problems in the maneuver areas—the control of the temporary eating and drinking places.

The matter of insect control is met there also; the wider extent of these areas and their shorter occupancy render effective insect

control especially difficult and expensive. Then it may become a matter, so far as malaria is concerned, of using other preventive measures such as mosquito bars, screening, and the various prophylactic medications to meet the situation.

During the World War cooperative health work similar to that proposed by Dr. Mountin and Dr. Vonderlehr was carried out to a certain extent; and, speaking from experience as senior medical officer in a Southern camp of some 40,000, too much cannot be said of the cooperative spirit and the value of the work performed by the Public Health Service Officer assigned to that area. The supervision of dairies, the matter of insect control, the inspection of restaurants and drinking places, the ventilation of amusement places--all those things were handled by this officer very successfully.

Now, with our improved health organizations, it is believed that very much greater successes can be achieved. About our stations during the past winter and in the maneuver that took place down in Louisiana in the spring, we feel that very fine work was accomplished in the matter of cooperative effort on the part of the Army, the U. S. Public Health Service, and the local county and State health organizations.

The same effort has been carried out in the summer maneuvers in Wisconsin and elsewhere. Though the official reports have not all come in, the verbal reports indicate that they were very, very successful. It is the wish of the War Department, and the Surgeon General particularly, that this cooperative effort be continued. The military appreciates the great value of the assistance that has been given by the Public Health Service and by the State and local health organizations and wants to work toward its further development.

DR. DRAPER: Thank you, Colonel Hillman. Commander Stephenson of the office of the Surgeon General of the Navy.

COMMANDER STEPHENSON: Dr. Draper and ladies and gentlemen, - Under normal circumstances people rarely recognize that the Navy is always a force in being. Our problems have already reached us, and most of them have been headaches. They are not the problems you people are now thinking about.

First I want to reiterate the troubles we are having in mobilizing the industrial organization. Nobody knows how far we shall be compelled to go nor how quickly we must do it. We are facing a labor shortage in a great many categories, particularly the skilled artisan. During the period of greatest depression many skills were lost, and it has been necessary for us to go into the highways and byways and bring in people who had skills that we thought were gone. It is of grave concern to us when we lose an individual who can do a special job and we don't know whether to find another to take his place.

Obviously our Navy yards are located in areas of great concentrations of population. It became necessary for me to ask the Civil Service Commission to make a condition of employment that all persons employed in the civil organization of the Navy be required to submit to vaccination against smallpox. It's a sad commentary upon our medical people that such a situation should arise in this age and time. We haven't done first things first. I don't know how old the oldest man is here, but obviously he was given vaccination against smallpox when he was a boy. Just a few months ago I finally succeeded in having this made a condition of employment.

It may be necessary for me to request as a condition of employment that people coming into these highly skilled jobs be required to have vaccination against typhoid fever. I would not recommend that as a mass proposition for several obvious reasons. A large number of persons are still not satisfied that it is necessary. We do not wish to annoy labor with vaccinations, but if we do get an epidemic of typhoid fever, or a carrier of typhoid fever coming into the eating places in our Navy yards, it will be a direct challenge to every State and local health authority. We do not wish to have our labor schedules destroyed by an explosive outbreak of typhoid fever in a Navy yard or the functions of one of our local stations to be disrupted. It should not occur.

As to the housing situation, I anticipate a shortage of labor. It is entirely possible that there may be a shortage of materials - perhaps not so much a shortage of materials as of the ability to get the materials to where they are needed. I shall divert for a moment to tell you an experience of mine during the last war when I went through Siberia. Our train was stalled at Povenichia, where the Russians had brought in a large number of troops whose tentage did not come along with them. The tents wouldn't have been of much service at that particular time, and I have always been deeply impressed by the ingenuity of these Russian soldiers that were picked up on the steppes of Central Asia or in the maritime provinces of Siberia or in European Russia. They did not allow themselves to be frozen to death but very promptly resorted to one of the oldest methods of housing that man has known. That is, using earth to make houses. In a short period of time these people had taken billets of wood and put handles into the billets and very promptly went into rammed earth construction.

I was back in Siberia again a few years ago, about five years ago, and those barracks of rammed earth construction put up by the Russian soldiers then were still standing and perfectly serviceable. While I have not lived in exactly that type of construction, I have lived quite satisfactorily in rammed earth houses in Europe. I believe there would be educational value in trying out rammed earth construction instead of flimsy barracks that are cold in the winter and hot in the summer. We might put up some of this material to show the people in a great portion of our territory who have always lived in shacks. It wouldn't take much labor for us to develop that sort of thing. It would be a Godsend if a lot of the houses down in my native State along the Tennessee Valley could be replaced. There is enough wood in them to make the forms and to make the roof, the other materials are at hand, and a man and his son would supply sufficient labor to provide the family with a house far better than the one they now occupy.

Had I spoken to you on Saturday, I should have been quite positive about what we need in the way of industrial organization, but plans are changing so rapidly I am less certain today. I had better go back and tell you what we have.

Throughout all industry we have never been able to measure what has happened to the man on his job. I finally was able to institute a system of reporting from our industrial organization. This form of reporting will require that for each attendance to the sick bay - to you people "dispensaries" - a record shall be made. That record comes directly to my office. Finally, when we have enough material, we shall tabulate what has happened to the man on his job. Those reports are

scanned daily to determine the causative agent; in case of accidents, immediately the Navy Department safety engineer is required to investigate the circumstances.

It might be interesting to those of you who have no immediate interest or concern with the industrial population to know that the number of repeaters in accidents in industry is astonishing. That brings us frankly and immediately up against the problem of reclassifying this labor, and we hope that that labor will not be reclassified to the point where there will be any reduction in economic status.

Last week I had a report on one man three times injured, one time in the right eye, the second time in the left, the third time in the left eye. Investigation revealed that this man had been issued safety goggles by the Navy Department but was one of the smart alecks who would never wear them. He had lost exactly nine hours from his job plainly on account of his stupidity. I bring this story up to illustrate the point that we have a large amount of information we could use immediately for the purpose of reducing accidents and illness. There is an unfortunate lag in that when a man is sent away because of an accident he is not required to report back for sick leave for a period of three days. Under the present laws we do not take care of him in his home. I think it may be necessary to have a better correlation between the Navy, and some agency or the civil practitioners in order that that man's time may be conserved, and we may get him back to the job more quickly. If it is a hospitalization case, he is transferred to the United States Public Health Service where he is beautifully handled, and then he returns to his job.

We shall be able in a short period of time to give you information never amassed anywhere in industry on a sufficiently large scale to afford any certainty of measurement. I hope that each of you in your own industrial organizations will encourage reporting. Not only that, but that you will make the reports immediately available for people who need them in their administrative jobs. Some of you have already received letters from my office requesting information on communicable diseases in your State. I should like very much to have that material made available, not only to myself but to other military men who must make up their minds and make recommendations on which policies are predicated by their superior officers. I see no reason why it should not and every reason why it should be done, for this will provide us with a basis for epidemiology which we have never had before.

The Navy being an organization in being has grown quite rapidly. Fortunately, we have had no epidemic disease in our training stations. We have four training stations, and I doubt that it will be necessary to build any more for the seagoing Navy. Unless we get into an unusual epidemic or unless we lay down all the knowledge that we have accumulated, I see no good reason why we should be swamped with communicable disease, except perhaps the greatest of all groups of communicable diseases - the venereal diseases.

We take these men into the service free of venereal disease, and we look after them very carefully for a period of three weeks to see that they are not venereally infected, and if they are we discharge them. That may sound heartless, and I hope the day may change, but life

on board ship is at best a peculiar sort of life. It's an abnormal existence. Men who go on smaller ships may be away from medical attention; hence we think now that it is best that we do not induct persons with venereal disease.

We had a much higher incidence of venereal disease than did the Army on the last occasion for mobilization. We shall have it again. It is already coming. But remember that for every venereal disease case that we have in the Navy there is a venereal disease case in the civil community. Our venereal disease rate reflects the rate in your own community.

There will be, of course, the development of aviation training bases. We already have one at Pensacola. We shall build another near Jacksonville. There will be one at or near Corpus Christi, Texas, and there will be one at Newport, Rhode Island. I suspect that each of these communities may eventually reach the size of about 75,000 population. Obviously, that brings into being an acute problem of the general services associated with community living. We hope that with this advance notice those people responsible for the administration of health in these localities will estimate the situation and prevent a great many of the things that we suspect may occur.

(Mr. Warren Vinton of the United States Housing Authority was called upon to speak. An abstract of his remarks follows.)

MR. VINTON: Mr. Chairman, ladies and gentlemen, - The intimate relation of housing and health has long been recognized by those interested in public health. Federal intervention in this field did not

come until 1937. The Senate investigation at that time disclosed some 10,000,000 substandard dwellings in the country. The United States Housing Authority Act was passed for the purpose of alleviating present and recurring unemployment and remedying the unsafe and unsanitary housing conditions in rural and urban communities that are injurious to the health, safety, and morals of the citizens of the nation. Under that program - carried out jointly by local housing authorities receiving loans and grants from the United States Housing Authority - some 160,000 houses are now being built in the country.

The health aspects of this program include emphasis on outdoor areas for children, on air, light, and heating facilities, on sanitation, on space, and on maintenance.

The emergency has increased the need for decent housing and increased the difficulty of maintaining decent health and housing standards, mainly through a shifting of populations. For example, one town with perhaps forty or fifty thousand families expects an influx of 5,000 enlisted men and civilian workers within the next few months, through military activities. Moreover an airplane factory will require because of new government contracts some 25,000 additional workers. In one town during the last war it was reported that the labor turnover was 300 percent a month at the crisis because of lack of housing for the men.

Around the Rock Island Arsenal, there is not a single house to be found vacant, and men are putting their families in one room that they can rent. Converted garages and chicken houses are being

used. Trailers with room for a couple of persons are being rented for $25 to $40 a month. The lack of housing makes men leave their families behind, and it may mean some slackening of moral responsibility.

In the last war the need for housing was not recognized early enough. Today we have four or five Federal agencies concerning themselves with housing and able to give aid in the emergency.

I believe that local health authorities and building inspectors must insist that the housing used be in a habitable condition. I believe that in the provision of new housing we should avoid as far as possible the construction of barracks. It is far better if houses somewhat oversize are built so that families may take in roomers and boarders. Above all, we should avoid the construction of temporary housing except where it is absolutely certain that no use can be made of it after the emergency.

If standards are not enforced by every locality, we shall be saddled with jerrybuilt, unsatisfactory housing put up by speculative builders.

The Federal Housing Administration, through its Home Loan Bank Board, is helping in the financing of private housing. But we cannot expect that private enterprise alone will produce most of the housing needed. Not all the defense workers can pay the rent which private enterprise must charge for new housing.

I believe that the principal responsibility will fall on the offices of the building inspectors and of the health authorities.

DR. DRAPER: The general subject, Health Administrative Problems Arising Out of Mobilization, is now open for discussion.

DR. CARLSON: (Abstract) Wouldn't it be better to restrict the migration of the undesirable floating population that follows every new huge enterprise than to let it happen and then have the problem of cure?

I was much impressed by the remarks of Commander Stephenson because they reminded me of a development in our own country. I have seen mud houses, good ones, built on the prairies of the West by white men for their families on their own hook. The human race has carried on longer in mud houses than in the houses of our present generation. It may be that public authorities can build homes for 40,000 people temporarily employed in Davenport, Rock Island, and Moline, but I doubt that private people can do it. Should we not soberly think of meeting emergency conditions by reasonable emergency measures? Or are we going to assume that for the next generation or two we are going on with production of military material for destruction at the rate we are planning now? (Dr. Mahaffey of New Jersey believes that construction should be contingent on the probability of using the buildings in the future for other than military purposes. Thinks that the program from the Federal point of view would be disappointing.)

MR. HOSKINS: (Abstract) It has been mentioned that the local municipal water supply is likely to be grossly inadequate in capacity, distribution, and laboratory control. To increase its output materially will require generally major enlargements of equipment and personnel.

The feeding and housing of camp construction labor, camp followers, military forces or industrial workers make excessive demands on local sanitation facilities and on establishments that handle and serve food. Sanitation of unsewered areas becomes important. The sudden

increase in the demand for milk puts a heavy burden on available milk sheds and on the safety features of milk and food processing and distribution.

Establishment of housing developments or camp sites in the southern states requires immediate consideration of malaria transmission and elimination of mosquito-breeding areas.

Sewerage and sewerage treatment facilities, especially in smaller municipalities, will need careful inspection as to their adequacy. They are likely to be found incapable of the anticipated increase in either domestic sewage or industrial waste contributions. The design and construction of extensions to such plants will require considerable time.

Methods of domestic and industrial sewage disposal from defense activities could create acute health hazards to adjacent civil population groups.

Experience in the last war taught us that the extra-cantonment zones most efficiently sanitated were those where we had been on the ground before the inrush of military and civil groups.

The following measures appear to be essential in preparing to handle such problems:

1. Prompt information from the defense authorities as to the location, size, and nature of proposed military and industrial establishments.

2. The recruitment, or at least immediate reservation, possibly through reserve commissions, of trained personnel for assignment on short notice to field duty at concentration areas.

3. The working out of detailed plans with State health departments for the strengthening of their sanitation forces and coordination of their activity with the United States Public Health Service.

4. Close cooperation between heads of governmental agencies and their respective field sanitation staffs to harmonize policies for disposal of liquid and solid wastes from concentrated population and industrial groups.

5. Allocation of funds to permit the mobilization and functioning of essential field forces prior to the concentration of military or industrial personnel in any area.

Some of our States, I believe, are facing one or more of these problems right now. Thank you very much.

(Dr. Jakmauh of Massachusetts requests a hearing for Arthur D. Weston, Chief Engineer of the Department of Public Health (Massachusetts) and Chairman of the Committee on Water Policy of State Conference of Sanitary Engineers.)

MR. WESTON: (Abstract) As I see it, there are two problems. The emphasis today has been given chiefly to the secondary one - the conditions which arise outside of cantonment areas or naval bases as the case may be. The primary problem, in which our Committee is chiefly interested, is that which originates on the cantonment area - the disposal of sewage from that area and the supplying of water to that area. You probably know without my telling you that there are many streams throughout the country used as a source of water supply which are the only means or the last means for the disposal of sewage. In such cases the water works plant is designed to take care of the

pollution load on the stream. If a cantonment or some Federal enterprise is established on that stream above the source of water supply, a load is immediately placed on the waterworks system or on the purification plant for which it was not designed and which it undoubtedly cannot carry.

We feel that the solution is close cooperation between the Federal authorities and the State health authorities. The cooperation works in both directions. The State sanitary engineer and his corps will often have intimate knowledge of general geological and topographical conditions which could not be expected of the Army officer or the naval officer going into that region to establish a base. Up in Massachusetts we had a national guard reservation constructed and paid for by the Commonwealth of Massachusetts which was taken over by the Federal government within the last two weeks. The water supply system and the sewage disposal system were laid out by my office because it was a State camp. The camp was suddenly expanded in population from 9,000 to 20,000 and then to 26,000. The water consumption jumped from 50 to 100 percent. We had the necessary knowledge for making that expansion possible, and in five hours yesterday the whole problem was straightened out.

I have asked Dr. Jakmauh to read a resolution from the Conference of State Sanitary Engineers. Thank you, sir.

DR. DRAPER: Dr. Jakmauh, do you care to read that resolution?

DR. JAKMAUH: (Reading) "In view of the fact that unsafe water supplies or the discharge of raw or partially treated domestic or industrial sewage from military or industrial concentration areas may

create direct hazards affecting the public health of populations inhabiting sections using such supplies, and because State health departments generally have by law or regulation been directed or charged to enforce definite standards for the control of public water supplies and the disposal of domestic and industrial sewage for the protection of the public health;

"Therefore, we recommend that the Surgeon General of the United States Public Health Service request the Administrator of the Federal Security Agency to bring to the attention of the Advisory Commission, to the Council of National Defense, the National Resources Planning Board, the War Department, the Navy Department, and such other Federal agencies as may be responsible for developing or constructing bases, training areas, industrial plants, and so forth connected with the National Defense Program from which domestic or industrial sewage may flow, the necessity for prompt adoption of procedures whereby drinking water supplies and waste disposal facilities constructed under the National Defense Program will meet the water and sewage treatment standards of the State whose waters receive such waste. We deem compliance with such standards essential for the protection of the public health of the people in the localities where such facilities are constructed."

(This resolution was referred to the Committee on Public Health in Mobilization Areas for consideration. Dr. Harper of Wisconsin was asked to tell of their experience in that State with respect to health and sanitation of maneuver areas.)

DR. HARPER: (Abstract) Mr. Chairman, ladies and gentlemen, - We have just gone through a maneuver in Wisconsin where the Army had about 60,000 soldiers. As requested by the United States Public Health Service, we set aside certain sums of money for the control of disease. We consulted with representatives of the Public Health Service and with the regular military officers. Preliminary to establishing the camps we had a meeting of the local officers in the communities to be affected - the judges, the district attorneys, the police officers, the sheriffs, and the deputies. Their big cry was that they were too undermanned to handle the problem. So we appointed 31 deputies as deputy State health officers and also as deputy sheriffs. We declared an emergency and had this military zone established. The Beverage Tax Division, which has supervision of all taverns, put on about 12 deputies and the Highway Commission about 40 to guard the traffic. The engineers examined all public water supplies. The highways leading to the military zone were patrolled and guarded by certain officers. No trailers except those with a special permit could enter and we took their number, the name of the owner, the number of occupants, and their purposes in entering We permitted no taxicabs without a special permit of the deputies. No new restaurants or hot dog stands were permitted. Known contacts of the military with venereal disease were reported to the civilian officers and vice versa. Something like 60 women were arrested and practically all were examined. Those without any particular occupation were sentenced to about 30 days in jail. Those who had residence in other States and wanted to return were sent there.

There were 78 cases of venereal disease in the hospitals in the month of August and 74 of them came in when the army came. Four new ones originated during the maneuvers. I think we had very few communicable diseases. Twenty-five persons were arrested by the Beverage Tax Division. Total number of cases of syphilis originating there - none. Some may occur after the soldiers return home. Gonorrhea - 4. In the civilian population no new cases of syphilis have been registered to date and only 1 of gonorrhea. We had 2 cases of measles, 1 of chickenpox, 5 of malaria recurrence, and 1 of tuberculosis. There were 3 deaths during the maneuvers.

(The next subject on the program is now brought up and Colonel Spruit presented.)

ADMINISTRATION OF THE SELECTIVE SERVICE ACT

COLONEL SPRUIT: Mr. Chairman, ladies and gentlemen, - If the reports that we have heard on the timing of legislation are true, the Selective Training and Service Act of 1940 is now a law in force. As I look around at my audience and note the graying hair, I see that to most of us as individuals what I have to say is a matter of academic interest; although we may have sons and relatives who are more intimately concerned.

I am going to try to touch on a few high points of the Selective Service process and then submit myself to such inquisition as your kindly natures may impose upon me.

The essential character of the Selective Service process is that it is a community affair. The local board makes the determinations

on men. It registers them; it classifies them; it hears their appeals; and it states who is going to go for military service, thus the salient characteristic is one of decentralization of operation through local boards whose determination, subject to appeal to larger community boards, will be final. The State and national selective service headquarters are simply coordinating and directing agencies.

Let me epitomize the process of registration and selection. In general terms it runs something like this: On a registration day to be designated in the President's proclamation all men between the ages prescribed in the law will register themselves at their polling places where regular election officials will make out a registration card for each registrant. The registration cards will be delivered to proper local boards which are made up of citizens of the community. The local boards will shuffle the cards haphazardly and number them subsequently in the serial order in which they occur. A national lottery will be held here in Washington where there will be a drawing of numbers from one up to the highest number of registrants reported by any local board. The order in which the numbers are drawn by the lottery determines the order in which the men will then become liable for Selective Service. The number one, for instance, which each board assigns after its shuffle of the registration card may turn out to be the last number drawn by the lottery. If that is so, the man assigned registration number one will be the last man in his area held liable for selection.

After the names have been rearranged according to the numbers drawn in the lottery, the board then sends out questionnaires to the registrants. If a registrant needs assistance in filling out his

questionnaire - and it is a rather formidable one - advisory boards for registrants will assist him without charge. On the basis of this completed questionnaire, the local board tentatively decides whether the registrant should be classified as available for military service or whether he should be placed in a deferred classification. If the board classifies him as available, it causes him to be examined by its examining physician. If the examining physician finds the man physically fit for military service, he is definitely classed as available and awaits his call. In doubtful cases of physical examination, the local board may request assistance from the medical advisory board in that general area to look over the case and assist in the determination of the man's ability to do military service. The registrant may appeal any classification that is given him with the help of the advisory board for registrants or with the help of the government appeal agent. To protect the interest of the government, the government appeal agent may appeal any deferred classification. Upon appeal, the classification is reviewed by the Board of Appeal whose decision is final except in certain cases which may be appealed to the President. This appeal to the President, however, purposely is made difficult.

Requiring a certain number of men for the military service, the national headquarters issues a general call on each State to fill its quota predetermined by the national headquarters. Each State headquarters sub-allots the quota and issues its call to each local board. The local board then, according to the drawings in the lottery, selects the proper number of men found available and physically fit. The local board then mails to each selected man a notice to report at a certain place at a specified time and there, if he be found

physically fit by the service examining board, he is inducted and becomes a member of the military service. So much for the mechanics of selective service.

I am sure you are all interested somewhat in exemptions and deferments. We have exemptions from registration. Those are laid down in the law. Roughly, they cover members of the military and naval services, United States Public Health Service, the Coast Guard, the Coast and Geodetic Survey, the National Guard, Organized Reserves, and so forth. Also the members of foreign diplomatic corps, and their consuls, if aliens, are exempted from registration. Those who are not required to register, of course, are not available for selection. Then the law has provided certain exemptions from service. Please bear in mind that exemptions from service and deferments from service are two different things. The exemptions from service fall into two general groups. That is to say, those men who have served or are now serving in the military services, the Army or the Navy or the National Guard or the Organized Reserves, and ministers of religion and theological students.

Now we come to the question of deferments. There are certain broad classes. The first class is composed of the Vice President of the United States, governors, legislators of the United States and of the States, and judges of courts of record both Federal and State. Another class is comprised of those holding offices necessary in the maintenance of public health, safety, or interest.

Then, under the determination by the local board, men who are considered individually necessary in industry, agriculture, or other occupations necessary to maintain national health, safety, or interest

may be deferred. Men having bonafide dependents may be deferred. Men who are physically, mentally, or morally deficient or defective may be deferred.

Note that no deferments will be made in the case of any individual except according to the status of that particular individual. There will be no deferment of individuals by occupational groups, nor deferment of groups of individuals in any plant or institution. Those are the provisions of the law.

Let me describe very briefly the medical function. The local board appoints an examining physician from the physicians in that community. If one is insufficient to do the work, it has the power to secure the appointment of additional examining physicians.

These physicians examine the men sent to them by the local board. They note deviations from the normal. They judge these deviations according to Army standards and Navy standards which will be supplied to them, the very standards that are going to be used by the service boards at the induction stations, and determine whether or not a man is fit for full military duty. If he is, they make that recommendation to the local board and return the papers. The local board, and not the doctor, says whether or not the man goes to military service for induction. If the man feels that a proper determination of physical capacity has not been made, he may appeal to the board, who use for further examination the medical advisory boards which are comprised of physicians in the several specialties of medicine. Should the local board in any case feel that it needs additional advice on the physical condition of a man, it may refer him to the medical advisory board. Should the local examining physician be in doubt as to the capacity of the man to do full

military service, he is authorized to secure the advice of the medical advisory board. So, we have provided a mechanism for appeal on physical grounds in the adjudication of which medical advisory boards may be consulted. The classification of a man as physically fit for military service does not, however, get him into the military service. He must then be examined at the induction point by the service examining boards and if found qualified, he will be accepted.

The selective service system has been decentralized to the States and by the States to the local communities. The Governor, however, of the State, acts as the controlling and coordinating agent for the activities of selective service within his State. He will have on his staff a medical officer of the services to advise him on the operation of the medical function within his State. The national headquarters is a coordinating and directing agency, a policy-making agency which will be located in Washington under a Director of Selective Service appointed by the President. It will be an agency of the civil government and not under the military or naval departments.

Perhaps I might refer, not to the benefits the military will get from the service and training of the men who are inducted as a result of this process, but to some of the more intangible benefits that will accrue to the medical profession, to all those who are interested in public health work, and to the nation at large as a result of this procedure. Provision is being made whereby the physical examinations of every man examined in the Selective Service process will be sent to the Surgeon General of the Army for statistical analysis such as was made by the Surgeon General on the first million men drafted during the last war. I do not have to tell you the innumerable uses

to which the statistics gathered from that analysis have been put. We shall expect to find many things; the occurrence of disease and disability as to character among various age groups comprised within the draft limits, by color, by nativity, by locality. A large amount of anthropomorphological data will be secured, and from all of this there will come a measure of the physical fitness of the new generation. We should also have some measure of the efficacy of the many and varied health programs that have been carried on in the last decade, some of which originated or received impetus from the statistics of the examinations for selective service in 1917 and 1918.

DR. DRAPER: Thank you, Colonel Spruit. Colonel Spruit's paper is now open for discussion, and if there are any problems between the State health officers and the Army about which you would like to have information, now is a good time to get the information. You have the Medical Corps of the Army represented, and you are free to ask any questions that may be on your minds.

(The following is an abstract of the discussion.)

Colonel Spruit makes the point, in answer to Dr. Grayson, Arkansas, that members of the medical reserve will not be subject to the draft but will be subject to call by the President.

Answering Dr. Musser, Louisiana, he says that those who remain after deferments and exemptions have been made will be called up in numbers sufficient to satisfy the call made upon the local board and given their physical examination. It is not planned to give a physical examination to every man eligible and registered.

Dr. Musser asks about the classification of the specialties for the special board, and Colonel Spruit reads: "The medical advisory boards,

insofar as practicable, will consist of internists, ophthalmologists, otolaryngologists, orthopedists, general surgeons, psychiatrists, clinical pathologists, radiographers, and dentists."

Answering a further question from Dr. Musser, Colonel Spruit says that presumably the medical profession in the several communities will see that the subspecialties such as tuberculosis, cardiology, and internal medicine are represented if they think it necessary. The States will handle that matter through their own machinery.

Dr. Musser asks about provisions for paying the doctor, and Colonel Spruit answers that provision has been made for paying for the ordinary cost of examination, but that the services of the physicians will be asked as a patriotic contribution.

On the average number of men who will come up for examination before a local draft board, Colonel Spruit replies that he can only give an estimate. On the basis of 400,000 men in the fall quota and about 6500 local boards, and if each local board had the same number of registrants, the number would be around 60 or 61. If one may assume that the same rates of rejection will occur in this selective service process as in the last war, and also the same rate of rejection by the Army, an additional 30 men would have to be examined.

Dr. Musser ties together his previous query as to paying the doctors and the amount of time taken up by a careful examination. Colonel Spruit answers that the board has full power to request the governor to have additional examining physicians appointed where the load is to great for those appointed.

Dr. Musser asks whether they have appealed to the hospitals for cooperation. Colonel Spruit replies that that is State business. He suggests that the provision made for covering the cost of examination should make available the necessary laboratory and other facilities of local hospitals.

Dr. Baker of Alabama brings up the question of whose responsibility it is to set up these medical advisory boards. Colonel Spruit replies that the State plan provides the number, the governor recommends the men on the medical advisory board, and the appointments are made by the President. He answers further that the selection of local examining physicians is also a State process.

Dr. Munger raises the question of medical students, hospital interns or hospital residents. Colonel Spruit repeats from the paragraph previously read that there would be no group deferments applicable to individuals of any class. The local boards will determine exemptions for each case. The selection of any particular registrant may be appealed by himself, by his employer, or by the government agent. Colonel Spruit offers as his personal opinion that it would be peculiar for a local board to strip the hospitals in a community of their doctors.

Replying to a question as to health officers scheduled for postgraduate training, Colonel Spruit answers that the bill provides for the deferment until the completion of the school year, or the first of July, 1941, of any student in a college granting a degree in arts or science who has entered during this school year.

Dr. Carlson asks whether an intern trained for a specialty would be put through the regular routine in the Army and Navy.

Colonel Hillman answers that the men inducted into the service will be sent to a reception center where their special qualifications will be recorded. He says it would be strange if a graduate physician inducted into the service did not promptly make his application for commission in the Reserve Corps. The general scheme is to classify all inductees promptly and make full use of their special qualifications.

Colonel Spruit answers a question as to proof of age by saying it will be required when the man goes to register. A question follows as to people in prison, and he answers that people in hospitals and those in prisons will be registered, but those in prisons will not be subject to the draft. The law provides that no man may enlist in the military forces if he has been convicted of a felony.

Replying to a question as to standards of physical fitness. Colonel Spruit says that they will use the same physical standards recently prepared by the Surgeon General's office and submitted to the War Department. In all important respects they are the same as those for recruiting. Some newspaper articles have not differentiated between the class 1-A man fit for all military services and the class 1-B man fit only for limited or special service. It is the intention at this time to select class 1-A men for military services. Since men are being selected for military training with the idea that at the end of the year they will go into the reserves for a certain number of years, it seems wisest to select the physically sound.

Dr. Godfrey of New York argues that there are men with slight defects who would be good training materials if corrections were made; also that the up-building of the health of the people should be of

importance to the military services just as it is to the population at large. Colonel Spruit replies that the law has made this a bill for service and training and that they have but twelve months in which to make a recruit into a soldier.

Dr. Godfrey brings up the case of students who are working toward a certificate in public health, which is not a degree, and asks whether they would be covered by the reference to students pursuing a degree in arts or science. Colonel Spruit answers that this point has not yet arisen and has not been interpreted.

(The Conference adjourned to be resumed at 9:30 a.m. the following day.)

TUESDAY MORNING SESSION

September 17, 1940

DR. PARRAN: The first topic for discussion this morning is Pertinent Needs in Industrial Hygiene. The discussion will be opened by Dr. Paul Neal, Chief of our Division of Industrial Hygiene. Dr. Neal.

PERTINENT NEEDS IN INDUSTRIAL HYGIENE

DR. NEAL: Doctor Parran, ladies and gentlemen, - The ground work laid by research in industrial hygiene during this last quarter of a century and the machinery developed for applying this knowledge during the past five years under Title VI of the Social Security Act make us better prepared to cope with the many problems posed by industrial health hazards than at any time in our industrial history. We have planned, organized, and are executing an industrial hygiene program which should be of material aid in our national preparedness effort. No matter what a job is today, we know it can be done safely provided we utilize the knowledge already developed in the field of industrial health.

Today we have 31 industrial hygiene units in state health departments that employ 31 physicians, 74 engineers, and 25 other technical personnel. These 31 units spend approximately $700,000 annually for industrial hygiene services. When we consider that there are fifty million workers in this country, it is evident that we are spending but 14 mills per worker for such industrial health

organizations. In some States with more than three million workers the entire budget is only $25,000 a year, and attempts are being made to cope with the problem with a staff consisting of only one physician, one engineer, and one chemist. Under such limitations as imposed by insufficient funds and insufficient trained personnel, very little may be accomplished in solving the manifold problems in industrial hygiene. If we are to be of any appreciable assistance to industry in the conservation of manpower during the present national emergency, it is obvious that we shall need more funds, more trained personnel, and a more aggressive program.

One of the important needs today is training centers for personnel so that the demand for physicians, engineers, and chemists in industrial hygiene may be met.

Being aware of the fact that other agencies both at the Federal and at the State level have an interest and certain responsibilities in industrial hygiene, the Division of Industrial Hygiene of the National Institute of Health has attempted in planning its program to establish cooperative relationships with these other agencies. At the present time cooperative arrangements have been effected with the following organizations:

1. The Division of Labor Standards of the United States Department of Labor.

2. The Council on Industrial Health of the American Medical Association.

3. The American Dental Association.

4. The Advisory Committee appointed by the American Association of Industrial Physicians and Surgeons. (Members of the American Industrial Hygiene Association are represented on this Committee).

5. The National Conference of Governmental Industrial Hygienists.

6. Universities.

7. Organized Labor.

8. Industries.

9. Other non-official agencies such as the Air Hygiene Foundation, American Standards Association, etcetera.

At this time a word should be said concerning the active cooperation of at least three of the organizations just mentioned. The Secretary of Labor has recently appointed a committee of 24 prominent safety promotion authorities to form a National Committee for the Conservation of Manpower in the Defense Industries. This Committee has developed a plan the essence of which is to bring to industry operating on government contracts, particularly smaller industrial units, the expertness and efficiency in accident control exercised by the largest and best managed industries. This will be done through the voluntary service of industrial safety experts from all parts of the country. The Committee has divided the country into eight regions.

The Division of Industrial Hygiene of the National Institute of Health has tentatively agreed to the following plan: Each regional director of the Labor Department's National Committee has been given a list of the State industrial hygiene units in his area. Should any one of the voluntary safety experts referred to above encounter

occupational disease hazards in the course of his investigation, he will arrange for the plant management to ask for the services of the particular state industrial hygiene unit involved. The national committee of safety experts will have entree to all plants engaged on government contracts.

The Council on Industrial Health of the American Medical Association has a very active industrial medical program which Doctor Seeger will discuss.

The Advisory Committee of the American Association of Industrial Physicians and Surgeons and the American Industrial Hygiene Association have already met with us and submitted the following recommendations to the Surgeon General:

1. The development of a joint approach to the problem with Federal, State, and other agencies concerned in industrial health.

2. The selection of important industries for immediate medical and engineering control of existing and potential health hazards.

3. The determination of present health service facilities in industry.

4. The development of a directory of qualified personnel.

5. The training of personnel.

6. An appraisal of the fatigue status in relationship to the National Defense Program.

7. The determination of method for the absorption of handicapped persons into vital industries for national defense.

8. A census of all existing laboratories which may be employed for investigating hazardous materials to be used by industries in connection with national defense.

9. Preparation and dissemination of information on various toxic materials and processes for the practical protection of the health of workers.

10. Investigation of the problem of personnel in industrial hygiene and medicine being mobilized for services other than the above.

11. Promotion of measures for the control of syphilis, tuberculosis, and other communicable diseases among industrial workers.

In planning a State program for industrial hygiene services, it is not necessary to go beyond present day practices. We are not recommending that the State improvise a program with the idea that the entire program will be abandoned at the end of the present emergency. On the contrary, the program which the United States Public Health Service is recommending to the various State industrial hygiene units is the type of program which should always form the basis for this work. For example, opportunity should be taken to integrate the industrial hygiene activities with the other activities in the State department of health, such as cooperative efforts with the venereal disease division for the control of venereal disease among workers and similar arrangements for the division of tuberculosis for the control of tuberculosis among workers.

Cooperative programs could also be developed with the divisions of epidemiology, sanitary engineering, public health nursing, and dental hygiene. In other words, an effort should be made to bring all adult health services directly to the worker at his place of employment. It goes without saying that cooperation should be

obtained from such agencies as the State medical society, committees on medical preparedness and on industrial hygiene, the medical and engineering schools of the State or other local university, organized industry, organized labor, members of the industrial physicians and surgeons associations, the State labor departments, the industrial commission, the regional director of the U.S. Department of Labor's Committee on the Conservation of Manpower in Industry, the State safety council, nursing societies, the State dental society, and especially the various divisions within the State health department itself.

It is extremely important that the private practitioners be reached through the State medical societies in view of the fact that recent studies made by us indicate that 85 percent of the workers in American industry do not have full time medical supervision in the plant.

The program is very practical. The main task is to evaluate quickly the important hazards to health in a plant and immediately give specific and practical recommendations to management for the elimination of the hazards encountered. Briefly, the program may be divided into five categories::

1. The investigation and control of specific industrial hazards. Some of the industrial hazards to be investigated and controlled are: Exposure to dust, fumes, gases, vapors or mist; defective illumination or ventilation; noise; excessive temperature or humidity; abnormal pressures; and posture.

2. Advice to managers of industry and others on the location of new plants and on the renovation of old plants in the interest of safety and health.

3. The promotion of physical examinations and medical services by industry.

4. The preparation and dissemination of information on various toxic materials and processes, including approved designs of exhaust systems for the control and elimination of atmospheric contaminants.

5. The promotion of measures for the control of syphilis, tuberculosis, and other communicable diseases among industrial workers.

The Division of Industrial Hygiene of the National Institute of Health has advised those States with large industrial populations, and especially the ones scattered over a wide area, that their activities should be decentralized by dividing the State into zones or districts and placing trained personnel in each district. This plan is in conformity with other public health activities which are conducted through the medium of local health services and has already been given a successful trial so far as industrial hygiene is concerned in several States. The central units retaining certain consulting specialists, such as physicians and ventilation engineers, are in a position to assist the district personnel in their work.

Several States have already submitted programs for expanded services in industrial hygiene. For example, California, Colorado,

Connecticut, Illinois, Indiana, South Carolina, Vermont, West Virginia, and Wisconsin have already submitted plans which will require, if they are to be put into effect, an additional budget of $250,000. Other States are urged to submit their plans and needs as soon as possible. It is hoped that sufficient funds will be made available which added to the $700,000 now being spent will bring the total to a level more nearly commensurate with the importance of this work than it is at the present time.

You will note that the program presents plans for utilizing existing machinery both at the Federal and State levels.

In closing this discussion, I desire to emphasize several salient points:

1. We must not forfeit the gains that have been made in the past five years for the sake of expediency.

2. We have organized an industrial hygiene program in the nation not as an emergency improvisation but as an integral part of our national life for the future.

3. Industry is cognizant of the fact that it pays to control and prevent industrial health hazards.

4. Labor is sufficiently well informed, organized, and articulate to demand safer and more healthful working conditions.

5. We have at hand the tools and information necessary for creating healthful working conditions and for improving the health of our workers.

6. There is no longer any question as to the necessity for industrial hygiene.

7. Industrial hygiene is here to stay. It will continue under the leadership of someone. If you as health administrators do not grasp the opportunity and give the necessary support, other agencies and individuals will carry on.

8. The situation presents a definite challenge which none of you should ignore.

Thank you.

(The discussion is opened by Doctor Seeger of the Council on Industrial Health, American Medical Association. There follows an abstract of the discussion.)

DR. SEEGER: I am neither a full time industrial physician nor a public health administrator, but a practicing surgeon. My interest in the problems presented here is based on my interest in the extending of public health activities through the facilities of medical organizations.

The Council on Industrial Health, organized about three years ago, has been concerned primarily with those practicing physicians who care for the 85 percent of industrial plants not manned by full-time industrial physicians. Its task is one of orienting the practicing physician to this work and coordinating efforts in the field. It works through committees on industrial health in State and county societies. The following activities of the Council may be of service in this emergency:

The Council is preparing a list of physicians - there will be at least 5,000 - who have participated in industrial medical work.

Each of these physicians will be queried as to his qualifications, experience, and the nature of the industrial medical facilities at his command.

The Council will acquire and publish information on the nature, location, and control of industrial health exposure.

It will improve and augment the organization of cooperating committees on industrial health in the State and county medical societies. It will develop field programs which will include the acquiring of information as to existing need, the arrangements for services, and the coordination of activities and agencies.

The Council will assist in developing intensive training courses in industrial health methods and will promote the recognition of the importance of assignments in industrial practice. The Council is now making a survey of existing laboratories which may be of assistance in the determination and study of toxic material.

I hope that in the present emergency some of the barriers between the public health administrators and the practicing physicians may be broken down. It is logical that the practicing physician should participate in programs of industrial hygiene which are basically public health programs.

(Dr. Selby, Medical Director of General Motors Corporation, adds to that Dr. Neal has said that the need of the moment is personnel for the small establishments - that it should be trained and made available at a cost which they can meet.)

DR. HAYNE (South Carolina): (Abstract) We have in South Carolina a division consisting of a doctor, a chemist, and a clerk.

That is the division of industrial hygiene in South Carolina, and with that division we have accomplished perhaps more than we have in other divisions that have been much better staffed.

We have a supervisory agency in the State, that is, an executive committee from the State board of health. The National Institute of Health, the American Medical Association, the National Defense Council, and the United States Department of Labor, through their committees or divisions, constitute consulting agencies. Cooperating agencies are the various divisions of the State board of health and other groups within the State.

The program. Complete present studies as soon as possible in order that all efforts may be devoted to the control of hazards in the defense industries. Second, conduct medical and engineering studies in the defense industries and offer practical recommendations for the control of hazards found. Third, advise new industries that may locate in the State regarding safe working environments. Fourth, disseminate information on various toxic materials and processes. Fifth, encourage industrial officials to provide adequate medical and nursing facilities for their employees because a number of physically handicapped persons will probably be employed to replace those drafted into military service. Sixth, encourage plant officials to institute physical examination of employees prior to employment and periodically thereafter. Seventh, promote measures for the control of syphilis, tuberculosis, and other communicable diseases. Eighth, render technical assistance to Charleston Navy Yard in protecting the health of civilian employees. Ninth, protect the health of

workers in potential mines that may open up because of scarcity of certain minerals. For example, there is zinc and tin in South Carolina but never in sufficient quantities to be mined under ordinary circumstances. Tenth, be on the alert for new chemicals and processes that may be introduced in these industries connected with the manufacture of supplies and equipment under the National Defense Act.

In instituting the above program, we are perfectly willing to do it with our doctor, our chemist, and our clerk. We are not asking for any other personnel because we are going to use other people to do the work.

The reason I mentioned the small number of persons we have is because every State should have a division of industrial hygiene, be it small or large. It costs the State of South Carolina about $25,000 a year.

We have made studies of dust in industries. We have made studies of asbestosis which is quite prevalent among the workers in Charleston in the asbestos factory. We have made studies of silicosis which has occurred among the granite and marble workers of the State and various other things of that sort. We feel that these have been of great aid in the program of public health.

You were talking yesterday about what happened to a small city experiencing a tremendous increase in population. Charleston has a navy yard. Charleston has a population of about 70,000 people. The work at that navy yard will be five or six times as great as it was, and there will be five or six times as many people employed there. We look for at least 30,000 people to be employed. In Columbia we shall have about 40,000 troops. The city is about 60,000. That

gives you some idea of the problem we shall be confronted with in the area of military congestion. Thank you.

DR. NEAL: (Replying to a question on the amount of money being spent.) I shall ask Dr. Selby to correct me. The corporation of which he is medical director spends $25.00 a worker for the purpose we are talking about. There are over 150,000 workers, and the amount involved for that one industry reaches several million dollars. Our $700,000, or 40 mills per individual, spent through industrial hygiene units of State health departments does not stack up very well.

DR. SELBY: Yes.

(Dr. Osborn of Connecticut puts in a plea on the need for haste, ending "Get your money now, get your personnel now, ask for help now, and get the job under way.")

DR. PARRAN: As was indicated in the discussion yesterday, one of the major problems with which the public health authorities will be confronted will be the physical rehabilitation of registrants disqualified for duty with the armed forces. We have asked Mr. Perrott to give us a summary of the nature and extent of the problem. Mr. Perrott.

PHYSICAL REHABILITATION OF REGISTRANTS DISQUALIFIED FOR DUTY WITH THE ARMED FORCES

(1) Nature and Extent of the Problem

MR. PERROTT: Dr. Parran and members of the Conference, - The Surgeon General of the Army in the reports on defects found

among men drafted for the other World War called attention to the implications of the findings in the following words that I would like to read to you:

"The importance of a knowledge of the defects in the American population of military age is many sided. It is important from the standpoint of social and industrial life, since it gives some insight into the availability of this population for the various occupations which our social organization requires. It has social and medical bearings since it indicates the physical and mental status of our population in various parts of the country and under different sanitary conditions and with varying opportunities for medical and surgical treatment. It has important military bearings since it indicates the proportion of men available for military service of various kinds. It has a social therapeutic bearing since it indicates the size and the nature of the task before those who would seek to improve by better conditions the physical and mental standing of our population."

That massive report, some 1600 pages, called the attention of the nation to the tremendous number of physically defective men in this country. It was the delight of our medical statisticians. I have a thumbworn copy of this report in my office which belonged to the late Edgar Sydenstricker of the Public Health Service. The results influenced him to extend his classic series of studies on morbidity and handicaps in the general population.

Today we are about to begin the operation of the Selective Training and Service Act which will produce more figures to the

delight of the medical statistician. Every physical examination will record a minute description of a human being, a young man who can be a support to the nation or a burden to it and to himself, depending on his physical fitness. Can we do something for our physically unfit young men today? Or shall we merely make their records into charts and coefficients of correlation for future generations of statisticians to make speeches about? That, I take it, is the topic of the discussion this morning. My part is simply a brief review of the findings of the last draft and its probable application to the present one.

It was on April 6, 1917 that Congress declared war against Germany, and on May 17th the President approved the selective service law providing for the registration of all males between the ages of 21 and 30 inclusive. Out of approximately some 10,000,000 males registered, there were measured and examined by the local boards before December 15, 1917 2,500,000 men. Of these 29 percent were rejected on physical grounds.

About December 15, 1917, the system was changed; all registrants not called to colors at that time were required to fill out questionnaires, giving detailed information in regard to agricultural and industrial status. And then all registrants were placed in 5 classes of which Class 1 included those liable for immediate military service. Then all Class 1 men were reexamined physically, even though they may have been found physically disqualified before December 15th. So you see the latter method apparently is what is going to be employed this time, as we heard yesterday afternoon.

Physical examinations will only be made on those who are eligible for military service, that is, after they have been classified in deferment and exemption classes.

The examinations of which I speak were made by some 4648 local boards, following our entrance into the World War, with more than that number of examining physicians. Many of the men were examined also by medical advisory boards with a total number of 9,570 physicians, and then in addition they were examined by thousands of medical officers at the various army cantonments, camps, and posts. The net result of these various procedures was that some 65 percent of the 10,000,000 men were put in deferred classifications on grounds other than physical disability. Out of the 3.7 million men who were examined physically, about 21 percent were rejected because of physical disability, and an additional 1.4 were placed in a limited service classification.

In the second million records which the Surgeon General examined, those were of men who came in after the physical examination procedures had become more standarized, there was an even higher percentage of rejections; about 23.4 were rejected, including rejections by local boards, and another 3.7 percent put in a limited service classification.

Now, first let us look briefly at the defects found in all the men examined, that is, whether they were rejected or whether they were accepted. I guess all of you know flat feet and other foot defects rank highest. These were about a fourth of all the defects found. Other orthopedic defects, lost or crippled members, curvature of the spine, etcetera accounted for another 10 percent, and hernia,

or enlarged inguinal rings, for about 9 percent. This group of what might be called mechanical defects constituted over 40 percent of all the defects that were found. Next in order of importance were the venereal diseases. About 8 percent of all the defects were made up of the cardiovascular-renal group, diseased tonsils, underweight, nervous and mental diseases, tuberculosis, defective teeth, goiter, varicose veins and varicocele.

The foregoing figures refer to all the men, whether or not the defect was the cause of rejection, and they are expressed in terms of the total defects. In terms of the percentage of men examined, they indicate that about 16 percent of all the men examined had flat feet, 7 percent other orthopedic defects, about 6 percent hernia, 6 percent venereal diseases of which 1 percent was syphilis and 5 percent gonorrhea, 7 percent defects of the eye or ear, about 5 percent cardiovascular-renal defects, and smaller percentages of other defects - tonsils, tuberculosis, teeth, goitre, varicose veins. The total indicated is 68.7 defects for every hundred men examined with 54.9 percent of the men with 1 or more defects, actually, an average of 1.3 defects per defective man.

It is interesting to see how the States varied in the defect rate found. Rhode Island led the list with the rate of 802 defects per1,000 men, and Kansas was the lowest with a rate of 422 per 1,000 men. The rejections range from 42-1/2 percent in Rhode Island to 12.8 percent in Kansas. There were 2 great centers of defects, 1 in the northeastern part of the United States and another in the western half, including especially the States on the Pacific

slope and the 2 mountain States of Wyoming and Colorado. An exception was Virginia which took third on the list. Lowest in the defects found in addition to Kansas were South Dakota, Nebraska, Kentucky, and Arkansas.

The Surgeon General summarizes these inter-regional differences in the nature of defects as follows: "Thus, in summary, the northeastern part of the country appears to be characterized by congenital defects and those of city life. The Northwest is characterized by deformities due to accidents, by goiter, and flat feet. The Southeast is characterized by venereal diseases, hookworm, and other complications, including blindness of one eye, arthritis, underweight, mental defects, emotional disturbances, pellagra, hernia, loss of upper extremity, and bullet or other wounds. The Southwest is characterized by tuberculosis, drug addiction, hypertrophied tonsils, and hernia. The north-central area is contrasted with the south-central by having more goiter, less tuberculosis, much less venereal disease, more varicocele and more varicose veins, more valvular disease of the heart and cardiac hypertrophy, more deficient teeth, more psychasthenia and constitutional psychopathic states. It is characterized by more otitis media, errors of refraction, diabetes, curvature of the spine, defects of genitalia, and weak feet, but less epilepsy, blindness of one eye, pellagra, loss of upper extremity, bullets and other recent wounds, underweight, and deficient chest measurements."

Now those interstate differences are probably in part real and in part due to difference in standards of the examining

physician. I don't think the enormous differences in the percent rejections can be entirely due to actual differences in the physical conditions of the persons in the different states. But undoubtedly some of the differences are actually real.

The discussion of that report could well take many days, but I propose only to draw a few applications in terms of the Selective Training and Service Act of 1940.

This Act, as you know, requires the registration of all males between the ages of 21 and 35 inclusive, and it has been estimated that these will include about 16,500,000 men. Over 40 percent of these will be married. There will be single men with dependents, others in essential occupations, some will be aliens, some will already be in the military and naval service. Altogether, upwards of 65 percent of the men may be exempted or put into deferred classifications for some reason other than physical disability. For the sake of some approximation as to the probable numbers of defects among rejected men and those in limited service classifications, I have assumed that four million men will be available for active training and an additional one million five hundred thousand will be rejected or in the limited service class because of physical disability. This physical examination will be made on some 5,500,000 men.

The relative importance of defects among these rejected men will be somewhat different from that in the data for all the men examined which I discussed a moment ago, because of course it is only the men with more or less serious defects which cause rejection that will get into this group. So that we will find among the

1,500,000 men that flat feet don't lead the list any more, but that the serious defects of the eye and ear will, and that there will be - if the data of the last draft are followed exactly in this, that is, if the defect rate is the same in this series of examinations as it was in the last - there will be about 310,000 persons among these 1,500,000 men with serious defects of the eye and ear, that is, 15 percent. There will be about 265,000, or 13 percent, with lost or crippled members, about 250,000, or 12 percent, with cardiovascular-renal defects. There will be about 200,000 with flat feet or other foot defects, 144,000 mental and nervous cases, 140,000 with tuberculosis, 140,000 underweight, 127,000 with hernia, 97,000 with defective teeth, 30,000 with varicose veins, 29,000 with goiter, 21,000 with diseased tonsils, 17,000 with syphilis, 20,000 with gonorrhea, and of course many other defects in lesser amounts, a total of about 2,000,000 defects among these 1,500,000, some of them having more than one defect, of course.

So from the foregoing we can see that nearly 60 percent of all the defects among these 1,500,000 men will fall into three broad classes - defects of the eye and ear, the mechanical defects including hernia, and the cardiovascular-renal group. If we add to these the nervous and mental defects, tuberculosis, defective teeth, varicose veins, and diseased tonsils, we shall have included nearly 80 percent of all the defects. These rejected men, obviously, are not a random sample of the defective male population since the Army is going to accept a good many men for active service who have defects which are not judged sufficiently serious to interfere with

military service or are easily remediable. The health of the accepted man is obviously the responsibility of the Army. Today we are to consider whether public health has any responsibility for rehabilitation of the rejected men. These rejected men are the culls, so to speak, from the physical point of view, and they are obviously going to present a difficult medical problem. Of course, some of them will be perfectly adequate for civilian life without medical attention, and for some medical science may have very little to offer. But there will be a large group with remediable defects whose utility to the civilian defense forces would be greatly increased by a program of physical rehabilitation.

As a statistician, I suppose I should conclude with an estimate of the number of men that could be rehabilitated and of how much the program would cost. Frankly, I shirk the task because we do not have adequate data. The present draft procedure, I understand, is going to cost about $25,000,000. A rough estimate would indicate that we have got to think in terms of at least a similar sum for a rehabilitation program for this whole group of rejected men. Of course the entire group won't be called at once - we are told that not more than 800,000 will be called in the first year; hence the cost will be very much less.

DR. PARRAN: Thank you, Mr. Perrott. The next aspect of the problem will be correction of general remediable physical defects by Doctor Coffey of the Public Health Service.

(2) Correction of General Remediable Physical Defects

DR. COFFEY: Dr. Parran, members of the Conference, and guests, - Since 1918 we have used the statistics on physical rejects during the last World War widely throughout the nation to bolster our arguments for public health work. The Annual Report of the Surgeon General of the Public Health Service in 1919 placed special emphasis on the fact that 34 percent of the draftees had been rejected because of physical defects and pointed out the need for a national health program. And a program was outlined. To be sure, this program was restricted to the old line public health activities such as communicable disease control, sanitation, maternal and child health, vital statistics, etcetera, but we have come a long way toward its fulfillment.

Now in 1940 we are again confronted with a selective service act, and we are pointing out that we may expect to have rejects of registrants because of physical disability. Also, it is reasonable to assume that as in 1917-18 many of the rejects will have physical defects which may readily be remedied, thereby making the registrants physically fit for military duties.

My sole purpose in coming up here this morning is to express to you a question for consideration. Shall we as public health workers accept the responsibility of doing what we can to bring about a correction of these remediable defects, or are we going to say that such an activity does not come within the scope of our present-day concept of a public health program?

In consideration of this question, I think we must all recognize that it is important as a national defense measure to do everything possible towards conserving the manpower of the nation.

Furthermore, there can be no question but that public health agencies are best qualified to meet this problem. Assuredly, if public health does not accept the responsibility and provide the machinery whereby this important work may be done, we may expect it to be assumed by some other agency in our scheme of governmental affairs.

To do this task does not mean that the health department must necessarily enter into the practice of medicine. It only means that the health department, utilizing its present local authority to protect and conserve the health of the general public, will be the official agency by which the activity will be organized and implemented.

There are several ways by which a program directed towards the correction of these remediable defects may be carried on. First, we can organize a program on a strictly local basis, utilizing available local medical and hospital facilities for the remedial care of local registrants. Second, we can organize the program as a State-wide activity; in other words, use the State health department as the supervisory agency and utilize all available State facilities. Third, we can develop a Federal program with the United States Public Health Service as the clearing point and the agency which provides the facilities for such services. Fourth, a cooperative program can be developed whereby local, State, and Federal facilities will be used where needed.

In any one of the four methods I have mentioned, there will of course be the problem, among the many others, of obtaining necessary funds to carry on the program, of determining the eligibility of those to whom the remedial care will be given, and of working out a satisfactory plan of payment for professional services.

The question I have already expressed - whether or not we in public health will accept the responsibility of doing what we can to bring about a correction of the remediable defects found through the operation of the Selective Training and Service Act - is now before you. It is under consideration by the Medical Care and Hospital Committee but I am certain that group will wish to have some expression from the Conference at this time.

Thank you.

DR. PARRAN: Thank you very much, Dr. Coffey.

One of the important aspects of the problem which deserves special emphasis is that of tuberculosis. Mr. Perrott has estimated that there will be found 140,000 cases of tuberculosis. We all are aware that in many communities facilities do not exist for their care and isolation. We shall ask Dr. Kendall Emerson if he will discuss this problem.

(3) Tuberculosis

DR. EMERSON: Dr. Parran, members of the Conference - It won't take very many moments, I believe, to lay before you a little of what's ahead of us on the question of rehabilitation of the tuberculous found among the recruits. The other speakers have referred to the previous draft at the time of the World War, and I shall do the same. The problem of tuberculosis was recognized then by the Public Health Service and by the Association which I represent. And therefore an offer was made on the part of the National Tuberculosis Association to follow up the cases of tuberculosis found among recruits for which they were rejected.

Unfortunately, the system established at that time required a circuitous march of the reports on these cases, and they were not available for immediate use in the community where the rejected recruit resided. The result was that there was a delay of months, sometimes of six months to a year, before the name of the rejected recruit was in the Public Health Service and before the tuberculosis associations could offer their assistance in looking up those cases. Meanwhile, some of the patients had died, others had disappeared, and the result of that effort at follow-up and rehabilitation was most unsatisfactory. I think we should call attention immediately to a great contrast between that draft and this. That was a war-time draft. We had not the time to plan. We hadn't the time to look ahead to the problems that were going to confront us. This time it is a peace-time draft, a very different matter. The opportunity is now before us, if we want to take advantage of it, to make use of procedures which for lack of time were not perfected during the previous period.

The reasons for stressing the rehabilitation work with the recruit rejected for tuberculosis are twofold. One, it is a slow, painful, prolonged, expensive procedure quite different for example from the case of a man rejected for hernia where an operation may make him perfectly fit in the course of a very few weeks. The second is that it concerns itself with a communicable disease; a case discovered in the course of the draft becomes an immediate public health responsibility. Immediate reporting, as I pointed out, did not take place in spite of existing laws which were supposed to require it during the previous draft. This time it seems to me highly essential that the machinery be set up whereby the public health service of

the State and localities from which recruits rejected on account of tuberculosis come should receive immediate notification in accordance with the laws which expect that event to take place.

Now if, as Dr. Farran says, we may expect the discovery of 140,000 cases of tuberculosis, there is an obvious and a rather abrupt burden coming upon State and local health departments. One should qualify that statement, I believe, by a further statement that it hardly seems conceivable that we are going to get 140,000 manifest cases of tuberculosis, namely, open and communicable at the time of discovery. Nevertheless, the great bulk of these will certainly be newly discovered cases and cases that require public health supervision and watching.

The problems involved are of course threefold: (1) Medical supervision in the rehabilitation of such cases after their prompt reference to responsible health departments, the medical supervision including both the public health supervision and the medical treatment aspects; (2) social rehabilitation which is always a problem in these cases, many of whom have few, if any, resources of their own; (3) vocational rehabilitation, frequently a matter of long training, retraining, or of actual education. Those are heavy problems, and yet it seems that the Public Health Service initiate the work if we are to make this an effective and well-engineered peace-time draft which should give time to do these things.

The National Tuberculosis Association has already sensitized its affiliated associations in each State to this situation. We offer whatever services we may have developed and possess to you

State and Territorial health officers and to your local units in aiding you to solve this rehabilitation problem among the tuberculous. The word has not gone forth for our secretaries to approach you as yet. I awaited the results of this Conference to get the "go" sign from the Surgeon General and your approval of our making the offer to you to put all our resources at your disposal in helping you to shoulder the burden which inevitably is going to add heavily to your duties in the not distant future.

(Dr. Overholser of St. Elizabeths Hospital is invited to speak on the mental problem.)

DR. OVERHOLSER: (Abstract) It is rather anomalous that the disease which accounts for half the hospital beds of this country, namely mental disorders, is in no State recognized officially as a public health problem. So far as I am aware, there is no public health department in this country that is charged with the care of the mentally ill.

Mr. Perrott has estimated that there will be nearly 125,000 persons rejected for nervous and mental disorders out of 1,500,000 men. Many of these will not be hospital cases. Many of them would undoubtedly profit greatly if proper facilities existed in the State for out-patient supervision and care of borderline cases.

I am wondering just how carefully the weeding-out process will be handled. Even borderline nervous and mental cases are liabilities in the military service - potential liabilities if not actual. A person who is going to break mentally may upset the morale of the whole outfit, and as a matter of fact things of that sort did occur.

We did not weed out enough of them during the last war. More could have been weeded out with better facilities and a little more time. At present over 2 percent of all the living veterans of the World War are drawing compensation for mental and nervous disorders. A little more time given at the points of induction would be very helpful in preventing a repetition of this experience.

At least one aspect of the mental problem should be tangible to public health officials and that is in the syphilitic psychoses. The anti-venereal disease campaign has resulted in a very substantial decrease in admissions to mental hospitals of the syphilitic psychoses, notably general paresis.

In general there is much that can be done in the preventive line to make borderline mental cases more useful to the community, and more of a comfort to themselves and to their families.

(Dr. Munger of the American Hospital Association ventures the supposition that some plan could be worked out under which the vacant beds which many hospitals are now carrying could be used in the rehabilitation program.)

DR. DENLEIN (RED CROSS): (Abstract) If we would snap into this quickly, probably we could work with the Army and experiment with these first 75,000 men before we attempt to branch out on a larger scale. To attempt to correct the physical defects of a small group is a big undertaking, to say nothing of millions. Whatever plan is developed, it must be closely worked out with the health departments, the medical profession, the hospitals, and any other agency that can contribute to it. I think it would be a terrible mistake to permit

the Army to send these men back home. You know that to try to do very much for the average person in the average community on a voluntary basis does not get us very far. For example, many of the men might refuse to be operated on for a hernia for fear that they might become eligible for enlistment again. There should be an understanding between those responsible for administration of the Selective Service Act and the groups represented here that these men will be referred for further study and care to physicians of high repute and standing.

The Red Cross has been asked to enroll a large number of medical technologists for possible service in the Army. Twenty-two hundred have made application for enrollment with the Red Cross. Fifty percent of these have been rejected. Half of the rejections are due to deficiencies in education and experience, but one in eight have been disqualified for physical reasons. There is another group, probably about ten percent, with defects for which they were not rejected. Probably half of them can be corrected; we don't know. We can get the experience if we experiment with the 75,000 men who will be called in the near future.

(Dr. Parran suggests that they might be able to use in reverse the same machinery used to find the defects - that is, the examining boards with their doctors, the medical advisory boards, and the chief medical advisers to the governors.)

(Dr. Reynolds of North Carolina suggests that provisions for preventing the preventable and correcting the correctable conditions should be extended to all those subject to call. For example, to examine serologically all those subject to call, this being the age group in which syphilis appears to the greatest extent.)

(Mr. Kratz of the Office of Education applauds the program and adds to the idea of physical restoration that of vocational adjustment.)

DR. McKAY (Utah): (Abstract) Did I get the wrong impression from someone yesterday or was it said that information obtained from these examinations would be strictly confidential? Does that imply that the record of tuberculosis found and venereal disease especially will not be made available to the health agencies? If so, it will defeat the very purpose of our discussion here this morning. I agree with Dr. DeKleine that unless compulsion enters into the operative procedures for those defects which can be corrected we as State health agencies shall be able to accomplish very little. But in the case of tuberculosis and venereal disease we can do much. I was wondering, Dr. Parran, if I got the correct impression.

DR. PARRAN: It is a very important question that Dr. McKay has raised. I have assumed that the provision of the Selective Training and Service Act as to the secret nature of the physical findings on those men who are rejected does not relieve the local examining physician or the advisory board of the responsibility for compliance with State law regarding the reporting of communicable diseases, including tuberculosis and the venereal diseases. I would ask the appropriate committee of the Conference to consider this question with a view to recommending that there be included in the Presidential regulation or the interpretative explanations thereof such a provision as Dr. McKay has suggested.

(Dr. Clark of the National Advisory Health Council asks that Dr. Overholser be invited to comment on alcoholism.)

DR. OVERHOLSER: (Abstract) Alcoholism so far as the military forces are concerned is just one of the conditions a bit difficult to diagnose without knowing something about the individual. The notion that at the end of the line of examiners you may have a psychiatrist who is some sort of an omniscient mindreader able to tell by cocking one eye at the man whether or not he suffers from some mental disorder is the worst sort of poppycock. There are a few cases so obvious that you don't need a doctor to make a diagnosis. In the majority of cases you really ought to have some information about the history of the individual. The Red Cross is ready to do its share through its social service set-up which is country-wide and can function rapidly and efficiently. I hope some facilities will be made available to have some sort of history on the doubtful cases before the examiners when they are called upon to say whether or not a man is fit for the military service.

(Dr. Bousfield of the Julius Rosenwald Fund offers the services of the Negro physicians and the Negro hospitals to the program. He emphasizes the point that it is necessary, especially for the colored group, to separate preparation for defense from the problem of physical rehabilitation.)

SEROLOGIC TESTS OF REGISTRANTS FOR MILITARY SERVICE

DR. WENGER: Dr. Parran, members of the Conference, - By this time I assume most of you ladies and gentlemen are beginning to

realize that we are preparing for a possible war. Mind you, I am not saying that we actually will have a war, but evidently those who are in the best position to know seem to think we ought to get ready, and for that reason we need the help of every health officer in the country.

Now what can a health officer do first of all? It seems to me that the least he can do is to see that the manpower of the country is free from venereal diseases. To examine everyone for gonorrhea would be quite a problem. To examine him for syphilis is not so much of a problem. So, instead of doing the usual inspections of recruits as we have been accustomed to in the past, I propose that we as health officers take the offensive immediately and find all the infectious cases of syphilis in the 16,500,000 men who will come up for registration October 16th, one month hence. Now the idea is not as big as it sounds. You need not get panicky about it, first because not all of the 16,500,000 men are likely to show up on that day. There will be many less. Some will be ill. Some will be away at school, and some will be absent for other causes. When I placed this proposition before my friends of the V. D. Committee last night, their first reaction was one of surprise because I am sure they each expected - they each felt - that I wanted them as individuals to take the 16,500,000 blood specimens, but that is not the case at all.

This will have to be done on a voluntary basis - but there is not much trouble getting blood specimens from people. We demonstrated that in Chicago. They told us we couldn't get blood specimens in the white schools, and we went out and got 167,000 of them. They

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said we couldn't go into industry, and we did that - there is no place in the world you can't get blood specimens. And certainly if men are going up for a purpose of this kind, they can easily be persuaded to have their blood examined.

Now let us assume for the moment that approximately 16,000,000 should come up for registration on the specified day. If that is true, we expect to find something like 900,000 cases of syphilis, and of the 900,000 cases of syphilis in that group you will have approximately 300,000 cases of infectious syphilis. This group is the great reservoir of infection. These 300,000 cases of syphilis constitute a reservoir of the syphilis that is going to infect other men and other women throughout the country and keep the problem alive. Let's take Illinois, for example. Illinois has a population of about 8,500,000 people. There are 8,000 polling places where these men will go to register. We have about 8,000 doctors in Illinois that are in active practice. It is obvious that we can't get all of these men to take blood specimens, but we can get a great many of them to do it with a little help; especially if we can persuade you health officers to back the movement. Perhaps we can through the American Medical Association, go to organized medicine and say to them: "Here, gentlemen, is a fine thing you can do. Here's a place where the health officer and the private physician can join hands and do a big job on a big scale, and it won't cost a great deal of money."

Gentlemen, this is the only opportunity you will ever have to get together 16,500,000 men at one time. You will never get it again; not in your lifetime. And why do we continue to do as the French did,

hide behind the Maginot Line? That, figuratively speaking, is what we are doing now. We are waiting until a man turns up somewhere with a chancre, we wait until the doctor has time to have it reported to the health officer, and then wait until the health officer finds somebody whom he can send out to do something about it. That may be all very well, but it is one of the most expensive types of program. Case-finding under those conditions is extremely difficult. From time to time you hear people say: "Case-finding in syphilis is no different than it is in typhoid fever." That's fine, until you try it. When you do epidemiological work in typhoid fever, you have a patient who is sick in bed, who can't get away from you, and who is willing to help, and so is his family. Now try that on the colored boy who since the age of 14 has exposed himself on the average of five nights a week and find out - he has been all over the country from one end to the other - and they try to run down where he got his syphilis. That's the problem you are facing. It is not quite so bad in the white group but nearly so because here is what you hear: "Where did you get it?" "I don't know, Doc." "Well, who was she?" "I don't know. I don't know her name." "Well, where did you pick her up?" "At a dance hall." You see. Now, where are you?

Now this scheme I am proposing can be carried out. Gentlemen, it is something you have a month to think over, and I know something can be done - if not the whole thing then at least a part of it. If we can't get 300,000 infectious cases, let's see how many we can get. I am going over this hurriedly because I don't want to waste your time and my own because the Venereal Disease Committee wishes full

discussion on your part.

I remember an undertaker one time said to me: "The time I collect my fee is when there are tears in people's eyes, especially when the widow still has tears in her eyes." And I say to you now is the time to get into this reservoir of syphilis, not wait until the man goes in the army. And, incidentally, the Army or the Navy is not the place to treat a man for syphilis. It is our job to get him into the Army or the Navy without syphilis. The Army and Navy have their hands full training men, and they don't want to train an infected man - imagine training a man with gonorrhea. The first thing he gets epididymitis, and then it takes two men to take care of him. Now let's be reasonable about the thing.

Now the last thing, and that is this: "Let's not make the mistake we made in the last war and have all the prostitutes that we find picked up and sent to court and pay a fine and then turned loose again to do some more prostituting. Let's get these women who are infected and let's tie them down somewhere. Let's put them in an institution, let's keep them there. You are not going to change them overnight. A fine does no good. You can't keep them in jail where they can't get any attention, so the only thing to do is to put them somewhere in barracks or do something with them but put them under quarantine. And last, we have been trying for 25 years to my knowledge to get chiefs of police to do something about prostitution. We have an example in Chicago. The chief of police assures me that he will buy me a new hat if I can find a streetwalker. The joke in that is that there are no more streetwalkers, they go into the 9,000 saloons

of Chicago, and they do their soliciting there. When we tell him that, he says: "Well, it is the Excise Commissioner's job to get them out." And I said: "Why don't your policemen go into a saloon?" He says: "They have got no business in a saloon unless there is a fight there, you see." So there you are.

Now this is really a chance where the health officers of America can join hands with organized medicine and really go to town on this problem. Now don't tell me there are not enough Keidel tubes in the country, and there is not enough of this, and there is not enough of that. The job can be done. Thank you.

DR. PARRAN: Gentlemen, I think that in a very few words Dr. Wenger has presented to us the grandest mass epidemiological concept that I have heard in my time. As he has said so dramatically, there will be marching into 143,000 registration centers on one day 300,000 active cases of syphilis, 300,000 foci of infection. I hope his suggestion receives very careful consideration by the Conference. It has been discussed, he has neglected to say, by a special committee set up by the National Research Council to advise the Army, Navy, and Public Health Service concerning venereal disease control, and that committee has whole-heartedly recommended the plan if it is administratively feasible. It is to that last qualifying part of the report I would wish to direct your attention.

(Dr. Paul O'Leary, introduced by Dr. Parran as one of the leading syphilogists in the country, says that the program is theoretically ideal but doubts that it would be a practical program to undertake within the period allotted for this survey. He says if they use ounce

bottles for lack of test tubes the serologists will question seriously the sort of material collected in that way. Some of the men, he tells the Conference, have said that 300,000 tests are more than they could do in seven years in their laboratories.)

(Dr. Snow of the American Social Hygiene Association also approves Dr. Wenger's plan in principle, but doubts that they could carry it out for lack of personnel and for lack of understanding on the part of the men. If they try to do only what they are ready to do, they will not risk bringing the whole program into disrepute.)

(Dr. Parran offers the suggestion as a fractional approach to the problem that they might work out a plan to use those doctors who because of their own ages come to the registration booths to register.)

DR. EAGLE: (Abstract) Granted that there will not be doctors available in all the 140,000 polling places, and granted also that it will strain our diagnostic facilities, I think it will be feasible to do some tests. The problem of materials can perhaps be eliminated because a little bit of antigen goes a long way, and it would be a relatively simple procedure for even one laboratory to make enough antigen in the next month for all 16,000,000 tests. The glassware might be a problem, but I would like to call to your attention that it is not necessary to use Keidel tubes. Slide modifications have been worked out within the past year for at least three entirely satisfactory flocculation tests which entail the use not of Keidel tubes but of capillary tubes. If the doctor were so minded, a mere finger-prick would suffice, and it would not be necessary to do a vein puncture. That in turn would help out in your problem of storage. To have

16,000,000 specimens or even 4,000,000 specimens come down on the laboratories in 24 hours is out of the question. It would be necessary to work out some satisfactory means of storing the specimens so that they would be suitable for serodiagnostic tests. Merely to put the serum into the ice box would not be enough, but it is entirely possible to freeze these specimens.

Performance is your real problem. These frozen specimens would remain satisfactory for at least a month, which would mean that the laboratories in this country would have approximately 4 or 5 working weeks in which to dispose of the specimens which come within 24 hours. I think if we are not too ambitious something could be done. The time is too short for the ideal setup which would be for key laboratories in preselected geographic areas to receive specimens from three or four contiguous States. I think that with the existing facilities using capillary tubes to as great an extent as is feasible, freezing the specimen, and using the larger of our State and hospital laboratories, and perhaps our Marine hospital laboratories as well, it would be possible to make a very decent showing if the attempt were made.

(Dr. Council of Alaska suggests that it would be a good idea if they could work out a plan to cover the men not now of draft age - say 18 or 19 years old - a plan to discover syphilis among them and to correct it.)

(Dr. Riley of Maryland offers the idea that draft boards could instruct the men to go to their county health departments or city health departments between the time of registration and the call to duty.)

(Dr. Chesley suggests that aliens at the time they are registered, could be required to have the test.)

(The question is raised as to whether the test is made on the men when they are inducted into the service.)

COMMANDER STEPHENSON: (Abstract) That's the plan at present. The Navy has attempted for a great many years because of the unnatural life on board ship to exclude venereal disease - and we shall continue to take a test on all who come into the service.

I was on the genito-urinary service of the Naval Hospital in New York for the demobilization period following the World War. When the demobilization period got started, everybody said we couldn't hold men for treatment. Before we ended I had in use 1800 beds. They were scattered in 3 or 4 different hospitals in New York. We handled those people as best we could until political science took the job out of our hands. Then the men were promptly turned loose before they should have been. How many cases of syphilis developed from that interruption in our efforts I haven't the foggiest notion, but I am beginning to get some notion as to about how many cases ended up in a hospital for the insane. I took a great deal of pride in reporting a series of cases of yaws. Back in that day I thought that yaws and syphilis were two different diseases. I am still openminded on the question. I took up several cases of yaws that had been reported as such in the tropics, and they came back here, and we still bragged that they were yaws. Out of the 1[illegible] that I found during that period of time, [illegible] are now in hospitals for the insane. Some of them have been in psychopathic hospitals for 10 years. The United States has been

boasting about having the best of this, that, or the other thing, but when an opportunity of doing the finest single epidemiological job of history comes before us, we are wondering if it can be done. I have an abiding interest in what happens in syphilis because no man can tell how long this emergency is going to last nor how large this defense effort will become. There is no earthly reason why we should have the usual amount of damage done by syphilis and gonorrhea. We take our men into the service free of venereal disease, and it is your function to see that we can turn these people loose for recreation without their coming back to us infected.

(Two questions are asked concerning the availability of funds for venereal disease control and the correction of other defects. Dr. Parran's answers follow.)

DR. PARRAN: It is my understanding that the general statement is accurate that under the substantial appropriation voted to the President for entering into contracts for carrying out other aspects of national defense any health program determined by the President presumably on recommendation of his advisory commission as being directly in the interest of national defense could be financed by such moneys already appropriated and at the disposal of the President.

It is also conceivable that funds not as yet voted, but which will be voted for financing the draft, could be made available for health purposes incident to the draft. The last appropriation is now pending in Congress; hearings are about to begin.

I would call attention to the fact that many States seem to have accumulated balances under both Title VI and the Venereal Disease Act, which balances would certainly be available for carrying out the program we have been discussing.

(The Conference adjourned to convene again at 2:00 o'clock.)

TUESDAY AFTERNOON SESSION

DR. MOUNTIN: (Acting Chairman) The first subject this afternoon will be presented by Dr. Crabtree.

THE HEALTH ASPECTS OF CIVIL DEFENSE

DR. CRABTREE: Dr. Mountin and members of the Conference, - I differ from most of the people who have participated in these discussions up to now in that I cannot lay claim to having had official participation in the last war. I take it that that qualifies me to discuss a problem in connection with national defense which for all practical purposes did not exist in the United States in 1917 - the problem of civil defense.

It is hardly necessary to say here that recent events in Europe have impressed upon all of us the dangers to which civilian populations may be subjected during modern warfare of the 1940 model. These dangers may consist of air raids or other military attacks upon civilian communities, more particularly those communities which contain or are adjacent to institutions of strategic military importance. They may consist of sabotage or other subversive activities directed against essential utilities or key industries, or they may involve the unorganized flights of whole communities of people before the approach of an invading army. We are informed by the War Department that it interprets its basic function in time of war as that of opposing the forces - the military forces - of the enemy,

and that it recognizes that its efforts to carry out this function will be impaired by the extent to which the force of its own army is dispersed to provide necessary civil protection. It is therefore proceeding, we are told, on the principle that the primary responsibility for the protection of civil communities in case of war must rest upon the communities themselves.

However, recognizing the great importance of civil defense to the maintenance of the morale of the population and to the prevention of dispersion of the strength of our own army and thus to a conservation of the total war effort, the War Department is assuming the initiative in developing plans and suggestions for civil defense. These suggestions are to be made available to States and communities to assist them in the formulation, training, and operation of civil defense organizations. This general plan is to be outlined in a series of publications, the principal document having to do with broad considerations of State organization and State-local relationships together with supplementary documents dealing in much more detail with special problems. These special problems which will be given detailed treatment in these pamphlets are personnel, training, the organization of air raid warning systems, the development of an emergency police, of fire protection, of personal safety, of evacuation of dependent groups of the population into areas of relative safety, the protection of utilities, of transportation systems, protective construction, anti-gas measures, and health and medical service.

It is in connection with the last mentioned of these special problems that the Public Health Service is cooperating with the War Department. The Public Health Service has recently prepared a

manuscript which will be used by the War Department as a basis for a pamphlet covering the general health and medical service problems incident to the emergency and offering general suggestions as to how these problems may be met.

I should mention here that the War Department advises that there is no disposition on its part to impose these plans or these suggestions on any State or any community. They are developed only for the assistance of those States or communities that desire such aid. The general subject is brought to you briefly merely to inform you that the problem is being given consideration in the general program of preparedness and that shortly there will be available such informational material from the War Department to any of you who may be interested.

Without going into detail as to the content of the health and medical service pamphlet, I will say that it deals with general principles of organization, of personnel and training, and with such major problems incident to the emergency as communicable disease control, sanitation, the medical aspects of evacuation of dependent groups of the population, first aid service, the organization of emergency clearance hospitals, of base hospitals, of mobile medical teams, of ambulance and other transportation facilities, of anti-gas precautions, of the need for keeping current inventories of local health and medical service resources, of a record system, of laundry facilities, of mortuary facilities, and of other special problems and services.

In one section, in the first part of the manuscript, dealing with general consideration, there is one paragraph that I should like to read in closing:

"As soon as general plans have become crystallized, funds must be obtained on some equitable basis to support the program, more particularly to provide for its developmental phases. Such funds may be difficult to obtain from public sources in the absence of immediate impending danger. On the other hand, a defense program cannot be developed overnight, and in the case of health and medical preparedness especially, time for preliminary planning and training of personnel is essential for an effective job."

DR. MOUNTIN: When we think of civil defense, it immediately suggests disaster of one type or another. In turn, when we think of disaster we naturally think of the organization that has had the largest amount of experience in that field. I would like to call on Dr. DeKleine to open the discussion on this subject.

DR. DE KLEINE: (Abstract) One phase of the civilian defense that we should meet squarely is that of the problems arising among those who follow the draft people into camp. I see no reason why there couldn't be set up in the city nearest to a concentration center a clearinghouse financed by someone, by some agency, to which all of these people might be referred for social service to see what should be done with them. Among them will be people who are sick of communicable or other diseases. Arrangements must be made to send them back wherever they come from and to send acute cases to the hospital.

Enlisted men have home problems over which they worry greatly. We had at every military hospital and camp during the previous World War a field director who interviewed these people and found out what their problems were. These problems were referred back to their home cities and the answer given in some way or other so that the morale of the enlisted man was saved to some extent at least. I think it is important

to watch that phase of civilian defense carefully. And as to disasters, I think we should bear in mind coordinating all existing resources - health departments, physicians, social welfare agencies, and the medical profession, as well as the Red Cross and all who have some contribution to make.

DR. MOUNTIN: (There being no further discussion on this topic) We will now take up the next subject which is Census of Public Health Personnel and Facilities. "Public" is not used in the narrow concept of public health, and perhaps it would be better to leave the word out. A number of surveys have been made and others are in progress, but it seemed to us that we might clarify this whole question of the collection of information as to the existence of facilities and personnel and their availability under different circumstances.

With the permission of the other speakers on this symposium I shall call first upon Doctor Munger; he has a plane reservation early in the afternoon for Boston where he is scheduled to take part in important deliberations of the annual meeting of the American Hospital Association.

CENSUS OF PUBLIC HEALTH PERSONNEL AND FACILITIES

(1) Hospitals

DR. MUNGER: Thank you, Doctor Mountin. The American Hospital Association, it goes without saying, is most anxious to be helpful in the present situation. We haven't known exactly where we could help the most. However, we were told that it was desirable for us to compile data upon the hospital facilities of the country, particularly in reference to what the surplus hospital facilities might be. (I would have discussed Dr. Crabtree's presentation except I knew I was going to speak now on the point of the importance of the civilian hospitals in anything related to

warfare on civilian populations. It seems to me we can certainly fit in there in case that emergency should occur. However, we all know what happened in the last war. The influenza epidemic and the great increase in need of facilities for the civil population. It is prudent, therefore, for us to get ready and to know what we can do about such things quite aside from any question of an invasion or hostilities close to us.)

Our Council on Government Relations accordingly, through the aid of the Secretary of the American Hospital Association, Dr. Bert W. Caldwell, conferred with authorities at Washington, particularly the three Surgeons General, to find out what they would like to know from the hospital field; then a questionnaire was developed along those lines. We surveyed our field with the aid of our State hospital associations and were thus able to get information from hospitals all over the country. The summary of this study, which I bring you today, includes the reports of every State in the Union with the exception of New York and Florida. The reports from those two States will soon be received.

I shall not bore you with detailed figures, but I believe a few totals will be of interest. We have received replies from hospitals whose bed capacities total 250,000. We found of those 250,000 beds, plus a close estimate for New York State, that 55,000 beds can be made promptly available to the government without injury to, or overcrowding in, accommodations for the normal clientele!

We have not as yet attempted to develop any figures as to the added number of beds we could make available to the government if an extreme emergency existed. It would of course be a much greater number than the 55,000 just mentioned. The State of New York did survey its facilities on both bases. It was found that while 7,000 surplus beds were available for immediate use of the government, 19,000 beds could be

made ready in a short time in the case of an extreme emergency. That would involve such measures as sending the nurses to live outside the institutions and using nurses' homes for hospital purposes. If New York is a fair criterion, it looks as though the civilian hospitals might provide 125,000 extra beds in a reasonable time if they were needed. Financial aid from government sources would doubtless be necessary.

Since we believe that the information which we have collected will be useful to a good many people, we have thought it quite important to break it down into a regional file. In fact, I have here today a complete file of the report of each individual hospital. If you have an interest in any particular city or region, you can find in this file what the hospitals have indicated as to their surplus facilities.

I pick out a card at random and here is the report of the hospital of the Protestant Episcopal Church in Philadelphia. It has a total of 530 beds, and it says that it can make available to the government in emergency, without impairment of service to its regular clientele, 130 of its beds. The card lists those beds according to the departments in which they can be furnished. For instance, 50 are general surgical beds, 40 are medical, 20 gynecological, and so on. The cards also give information as to the sex and age of patients that could be admitted to the facilities that are available, and they indicate the types of acceptable patients, such as acute, sub-acute, convalescent, chronic, and so on.

Because we knew the interest of the governmental departments in locating and, where necessary, developing technical people to work in

military hospitals, we made inquiry concerning possibilities for training additional technical workers. We find that the Protestant Episcopal Hospital of Philadelphia, for instance, believes that it could train four X-ray technicians - could put them into training right away - three dietitians, eight clinical-laboratory technicians, three nurse-anesthetists, and two occupational therapists. I believe this information is likely to be very valuable. A question was asked as to "personnel which would be available to the government without impairment of service." It appears that the hospitals can supply a considerable number of such personnel.

We believe that this survey, because of the way it is set up, may be very useful. We hope very much that it will. We have prepared copies of this file, of course, at our own headquarters in Chicago. There is a copy here for Surgeon General Parran's use, and a copy has been or will be sent to the Surgeon General of the Army and one to the Surgeon General of the Navy. In addition, for the use of the State health officials and the secretary of the State hospital association in each State, there will be this same information. The American Hospital Association, I am sure, would be glad to make more copies whenever they might be needed. These are concrete services which we have been able to render.

We made inquiry of the hospitals as to the available personnel, that is, the personnel that they could spare. We found that although they could spare 55,000 hospital beds, it seemed that only 3500 nurses could be taken from the hospitals themselves for an emergency. This rather clearly indicates that in recruiting nurses for government work, we should not look to the civilian hospitals to release very many. This is an important point for the public services and for the Red Cross to bear in mind.

If our Association or the individual hospitals can be of further help, we want only to be told what is needed. We appreciate very much Surgeon General Parran's invitation for us to be represented here because it gives us a most valuable opportunity to learn the government's problems and how we may be able to help with them.

In closing, I take great pleasure in presenting this file on available hospital facilities for the use of Surgeon General Parran and his staff.

(Dr. Munger added the following in answering questions of Dr. De Kleine of the Red Cross and Dr. Shapiro of the American Legion.)

All hospitals in the file are members of our State hospital association. We have no formal approval of hospitals by the American Hospital Association, although the American College of Surgeons does inspect and approve hospitals of 25 beds or over. I feel sure that you will find that all on our list are on the list of registered hospitals of the American Medical Association and that a very large percentage have been approved by the American College of Surgeons.

(On veterans' hospitals) Only insofar as the veterans' hospitals are members of the State hospital associations would we have obtained the information. I know that many of them are included, though we took it pretty well for granted that the governmental authorities would know what Federal beds were available.

(2) Physicians

DR. LELAND: Mr. Chairman, ladies and gentlemen, - The American Medical Association has now been at work for two months on the medical preparedness program. It seems unlikely that there should be any

Directory. This contains the names of all the known physicians in the United States at the time it is issued. It may be of some interest to you to know that there are frequently as many as 25,000 to 30,000 changes in a year. They include changes in address, changes because of death, and the addition of the names of newly licensed physicians. Inasmuch as this census of physicians was to contain information which ordinarily does not appear in the directory, it was considered advisable that a complete new census be taken to include all those items which ordinarily are found in the directory opposite the physician's name either in code or otherwise. Therefore, the schedule which was sent to all physicians regardless of whether they are members of a county or State medical society or not requested all of the ordinary information in addition to the military data that were desired by the Surgeons General of the military and public health establishments.

The first schedules were mailed to physicians on July 5th, and the mailing of approximately 180,000 schedules was completed on July 16th. The first schedules were returned to us on July 10th, and the largest mail was that on July 18th when 7,787 were received. On September 13th, 96,770 schedules had been received. That represents 53.8 percent of the total schedules mailed. The next 46.2 percent will be harder to get.

Many of you who are in touch with the situation locally may have heard the complaint from some physicians that they have not received the schedules intended for the census of physicians on this medical preparedness study. We also have received that complaint from

several quarters. There are two possible answers. One is that we know 179,790 schedules were mailed in an envelop which we thought was marked so clearly that no physician or physician's secretary, nor anyone else connected with him, would fail to recognize it and certainly call it to his attention. There are, however, some physicians who are sufficiently frank to say that they threw them away, and I believe that a great many of them could have been found in wastebaskets. One physician was honest enough to give us, when asking for a new schedule, a piece torn off from the original one; he had thrown all but that little piece away and he wanted to be sure that he got the same kind of a schedule represented by that little piece so he sent the sample to us. Another schedule was sent.

These schedules are first checked off the American Medical Directory. They are then edited. Many of them are not complete, and the answers on some of them are so obviously incorrect that to about 40 percent of the physicians returning schedules in the early days of this study an additional schedule had to be sent for other information to supplement the first one. Physicians are, however, prompt in returning the second supplementary information schedules. After those are received, they are again checked and are sent through to the final editing group. The schedules from there go to the International Business Machine Service Bureau in Chicago for placing the information on punch cards. We are using at the present time 7 special directories with which to check the information on the schedules, and we have asked for several more directories. Lists are now being prepared of physicians who cannot be spared from the faculties of medical schools. The faculties themselves have been asked to supply us with these lists.

Lists are also being prepared of specialists by States, and eventually it will be possible for us to compile lists of all the specialists in each State. Those lists will contain the names of physicians who are devoting their entire time to a given specialty and also those physicians who are devoting special attention to that same specialty.

Lists of physicians who are engaged in industrial practice are also in preparation. Industrial practice has been given a considerable amount of attention in this census. We are endeavoring to give every physician every possible benefit with respect to his interest in industrial practice of any kind. To all those physicians we are sending an additional schedule on industrial practice. That schedule is one which has been prepared particularly for this purpose after consultation with a considerable number of physicians among whom, I believe, was Dr. Neal. It is hoped these schedules will give actual data concerning the special activities in which the physician is now engaged, whether or not he has had special training, the percentage of time he devotes to these separate types of industrial practice, and the number of years in which he has been engaged in them.

From this schedule an opportunity will be had to make a study of the scope of facilities and services in the plants reported by these physicians who have some administrative responsibility in their various plant connections.

To avoid confusion and multiple assignments, it is believed essential that the Committee on Medical Preparedness should have as soon as possible the lists of physicians who are deemed necessary for the

health and medical care of the civilian population and for industry at home. Those lists should be made out by the physicians in cooperation with the health officer and any others who have special knowledge of the functions which these men perform, in order that the essential services of industry and the civilian health may be disturbed as little as possible during the recruitment of physicians for the armed forces.

Perhaps the health commissioners of the States and those of local smaller units already know about this request that has been made of the chairman of State medical preparedness committees.

A certain number of physicians throughout the country have had special training and experience in health administration. It is possible that in some places there may be some disturbance of these health administrators, but on the other hand the armed forces of the nation require that men who understand and who have had some experience in health administration be assigned to certain duties in the armed forces. The military, as well as the civilian population, need control of sanitation and communicable diseases. Therefore, we must not be surprised if the Army makes requests for men who have had particular training and experience in health administration and sanitation.

It is also essential that the Committee on Medical Preparedness have reported to it those physicians who are chosen as attachés of the draft boards. It is my understanding that the physicians who are to examine the enrollees are not members of the draft boards. They are merely attached to these draft boards, and in order that we may not be confused we need the names of those physicians so that they may not be recommended for some other job while they are on duty with draft boards.

Likewise, the names of those physicians who are serving on the advisory specialist boards should be reported to the Committee on Medical Preparedness in order that we may know that they are already assigned.

The punch card bank of the Committee on Medical Preparedness will contain, as soon as possible, the names of all physicians in the United States, regardless of whether those physicians be in active practice or not, whether they now hold commissions in the regular Army, in the Navy, in the National Guard, or the Reserves. All physicians will have cards. The task requires that all physicians throughout the United States have an understanding of the objectives of the task that has been undertaken by the Committee on Medical Preparedness, and that they assist fully in providing the desired information. This information is to be made available at any time that the Surgeons General of the Army, Navy, or Public Health Service desire it. They are to make requests of the Committee for lists of names, or requests are to come from the corps area commanders for lists of names for the armed forces. The medical preparedness program is an effort to prepare the medical personnel and facilities of the nation to meet those medical and health conditions which arise during the process of preparation for national defense and to be assured that if an emergency, or if war, should come we shall be as well prepared as possible.

These points seem to bear repeating: that the conditions which face us during an emergency such as this require the highest type of medical skill, that we cling as tenaciously as possible to the highest standards of medical science, and that we do not during these times relax our effort nor allow our standards to be lowered. It seems to me that now, as perhaps not in ordinary times, it is necessary for us

to consider the future of medicine and the health of the nation. We cannot safeguard that future if our medical personnel is to be dissipated or used up rapidly at the very beginning, and therefore the recommendation of the Committee on Medical Preparedness that medical students, interns, and residents be deferred from military service until their period of medical education had been completed.

Even at this early date, I believe it is safe to assume that there will be sufficient work for everyone. There has been laid out in the discussion and papers in this meeting a sufficient amount of work, I believe, to require the efforts of all, and especially the most competent personnel in the health services of the nation. If this work is to be done well, with the greatest degree of efficiency, the least loss of time and the least duplication and confusion, it seems to me that it must be coordinated in order that each one of us will fit in best to the work which he is most competent to perform. The health administrators, I am sure - and I speak as one who has had experience in health administration - will be completely occupied with the work which you have outlined for yourselves at this meeting along with the regular work which, I presume, you intend to continue, and with that which is ordinarily understood to fall within the scope or field of public health.

There are other problems which have been mentioned here, problems which I believe ought to be assumed by the practicing medical profession. The problems of the care of the military casualties, of the ill or injured in industry, and of the defective draft enrollees. These problems differ in many respects from those of public health administration and, I believe, belong to the practicing medical profession to which, I think,

you have a right to look for the solution. And in the solution of these problems I believe that the medical profession of this country may be depended on to rise to the opportunity and to the necessity of the situation as it has arisen on occasions before.

The medical profession, I believe, will welcome a very frank, early, and free discussion of these problems with you as health administrators. You and the practicing profession can very well meet for the common solution of these problems which need attention and solution at this time.

It is because of all these new and often very difficult problems that we are endeavoring to classify the physicians of the country in order that we may know, not of our own judgment but of the judgment of those men who are capable of passing on the qualifications of their confreres, the physicians who are best qualified to undertake and to solve these special problems. It is for this reason and others that the Committee on Medical Preparedness has undertaken this work and has placed at the disposal of the Surgeons General of the Army, Navy, and Public Health Service and of the Council on National Defense, all of the facilities of the American Medical Association, and intends to continue this work so long as is necessary. Thank you.

(3) Dentists

DR. CAMALIER: Dr. Mountin, ladies and gentlemen, - In describing the medical questionnaire Dr. Leland has also very nicely described the dental questionnaire which is being sent to all dentists throughout the United States, and for that reason you will not be burdened with my description of it.

I was very pleased to receive and accept the invitation of Doctor Parran to address you briefly today on the part that the dental profession of the United States is desirous of taking in the preparedness program of the nation.

Like other good American citizens, the dentists of the United States and its possessions are eager to do all they can towards making their country safe against invaders and at the same time preserve so far as possible normal health service facilities. The Committee on Dental Preparedness of the American Dental Association was appointed by President Arthur H. Merritt of New York in December, 1939, and from that time until a meeting of the Association last week in Cleveland, it has been engaged principally in organizing the dentists throughout the country to be ready for eventualities. All States and possessions have appointed military affairs committees, and many of the large cities have done the same, all cooperating properly and efficiently with the national committee, the headquarters of which is in Washington.

In addition to organizing, the national committee and the State committees have cooperated with the American Red Cross in enrolling dentists, dental hygienists, and dental technicians for a possible national emergency, and through the cooperation of these agencies it is believed that a valuable list will be obtained for the use of the military establishment if and when it may be needed.

At the recent meeting of the House of Delegates of the Association, the committee appointed by Doctor Merritt was reappointed by the House and the following action was taken:

In a communication from Major General James C. McGee, Surgeon General, United States Army, the Association was requested to:

1. Conduct a survey of the dental profession.

2. Canvass its members to determine who would express a willingness to serve, and to determine those who should remain at home because of their age, physical disability, or commitment in civil capacity.

3. To list those who are selected for possible military duty according to their professional qualifications, such as oral surgeons, prosthetists, and so forth.

4. To list those who are to remain at home, those qualified for examination boards, and so forth, and

5. Other information considered invaluable in time of national emergency.

The Association authorized the distribution of a questionnaire to all registered dentists in the United States and its possessions - about 75,000 - and directed that the information so obtained be classified and tabulated promptly in order that it may be made available to the military officials in Washington and members of the Committee on Dental Preparedness of the Association.

As I said before, it is not necessary for me to go into the details of that. I might say, however, we are very hopeful that 85 or 90 percent of our men will respond to our questionnaire.

Inasmuch as the Surgeons General of the Army and Navy officially requested the Association to give some assistance in the matter of reducing the percentage of rejections for military service due to dental defects, as applied to volunteers and prospective draftees under the conscription law, the Association directed that proper officials of the American Dental Association discuss this matter further with Federal officers in Washington in an attempt to reach a satisfactory

agreement as to methods of procedure and so forth, and when this has been accomplished that the information be transmitted to the profession and the military affairs committees of the States for their guidance.

In this connection, our Committee requests all State and Territorial health officers and officials of the national government who are interested in this particular phase of national defense to kindly give our Committee an opportunity to consult with you before any plans are consummated. It has been called to our attention that already efforts are being made to project plans for dental care into certain communities before our national committees have had an opportunity to study the subject in its relation to the whole United States or the problem of national defense in general.

It will be interesting to you to know, if you have not already been told, that the latest available United States Navy recruiting figures show that dental defects cause more than twice the number of rejections as does any other type of physical disability. Out of 93,077 Navy applicants for 1938, 66,490 young men were rejected, and of these neglected teeth caused 21,561 of the rejections. It is probable, of course, that standards would be lowered under the stress of a real national emergency, but the figures are important in the consideration of this problem.

Authority was granted the Committee to publish in detail description of special courses in military dentistry, now being prepared by the War Department, in order that the information may be readily available to our entire population and especially to our military affairs committees and study clubs in the various States.

This program calls for special education of dentists in preparation for the possibility of services needed in the event of combat.

This is a step which must be taken in any dental program which realistically approaches the problem of national defense. Our men must be trained in techniques which are obviously uncommon in peacetime practice.

The studies will include intensive training in dealing with the many cases which come within the province of the oral surgeon and will bring dentists into closer relation to the work of the medical units so there may be perfect unity of purpose and action.

I might say with reference to the statement made by Doctor Leland concerning the dental medical students, I understand today that they have been taken care of to the extent that they will not be disturbed through this coming year, pre-dental students and dental students, the year 1941. That's a very important thing from the standpoint of dental education in the United States because, as you men know, we must preserve the colleges, the courses in our colleges, in order to equip dentists not only for military service but also for their work at home.

The House of Delegates also received, with deep appreciation, Dr. De Kleine, the beautiful map prepared by the Red Cross under the direction of this Committee showing the organization of dentistry in relation to the preparedness program.

The Association recorded its approval in principle of the preparedness program of the United States and offered its full cooperation in the attaining of these objects. I thank you for your kind consideration.

(4) Nurses

MISS McIVER: A Nursing Council for National Defense was organized about two months ago. This Council is made up of the presidents of the national nursing organizations and representatives of the nursing service of the American Red Cross, and the representatives of each of the Federal nursing services including the Army, Navy, Veterans' Administration, Indian Service, Children's Bureau, and Public Health Service.

One of the first projects proposed by the Nursing Council was a nation-wide census of registered nurses. The Council requested the United States Public Health Service to act as an official sponsor of this project and the national nursing organizations as the co-sponsors.

The Public Health Service has agreed to sponsor this project, and the schedules are now in the process of being prepared. The national nursing organizations, through their State associations, have agreed to distribute the schedules to all registered nurses (those actively employed, the married ones, and the retired ones) to collect and to edit the schedules and to return them to the Public Health Service for tabulation and analysis. The Red Cross has agreed to help the National Council in paying a statistical worker who will work with the Public Health Service in supervising the tabulation of the material, and the Public Health Service will assume the responsibility for it.

The District of Columbia has offered to be the proving ground for the schedule and procedure. We shall try out the scheme in the District of Columbia, and then if we need to clarify any of the items we can do that before we send the schedules to the rest of the country.

When this survey is completed, we hope to have available a complete roster of registered nurses in the United States. We shall know whether they are available for military or civilian duty. If for civilian duty, whether they are available for full time or part time or volunteer work, and whether they are available in their own home communities, or whether they can be sent elsewhere. We shall also know what type of nursing work each nurse is best fitted to perform and what special training or experience she has had that will fit her for that work. For instance, it would be possible on rather short order to sort the cards for nurses that have had special training and experience in venereal disease control, or in tuberculosis work, or psychiatry. We shall even know those who are licensed airplane pilots, and they tell me quite a few nurses have such licenses.

Second Reserve Nurses. At the September meeting of the Council, a communication was sent to the War Department asking that public health nurses and teachers and administrators in nursing schools be put in a second reserve and not be asked to accept military assignments at this time. It was unanimously agreed by the members of the Council that public health nurses would be of the greatest use in the defense program by staying in their own jobs, and in the event that more nurses are needed than are now available it is believed that those nurses who are responsible for the education of student nurses should also remain at their present posts of duty.

The nursing representative of the Army reported the need for 700 additional nurses before October 15th of this year, and a need for 4,000 more nurses before June 1st of next year. Other departments reported

smaller increases in personnel. In the light of these demands, it seems logical to the members of the Council to plan for increased educational facilities in good schools of nursing. A committee made up of competent nursing educators was appointed to propose plans for providing Federal or State subsidies to nursing schools which meet certain requirements and to suggest ways and means of increasing the enrollment, particularly the enrollment of young women who have an unusually good educational background. Possibly some publicity will be sent to the junior colleges to interest the young women who have had some junior college training in preparing for nursing.

I cannot close these brief remarks without saying a few words about the public health nursing census. For the past four years the United States Public Health Service, cooperating with the nursing divisions of the several State health departments, has taken an annual census of all public health nurses within each State. The information for 1940 has been tabulated and will be available for distribution within a few weeks in the mimeograph form such as you have had before. There were no unusual changes in the distribution this year as compared to the distribution of last year. The most disappointing aspect about the 1940 report is the negligible increase in the number of public health nurses in 1940 over 1939. The increase this year was only about 1 percent while the increase in 1939 over 1938 was 4 percent, and 1938 over 1937 was 9 percent.

The duties assigned to public health nurses have been greatly expanded during the last couple of years. We expect more and more of the public health nurse's time to be devoted to syphilis control, to

pneumonia work, to industrial hygiene, and to maternity care. Participation by the nurses in these special programs is perfectly logical, and we have all urged that generalized public health nurses be used for all of these special services, but we must remember that they cannot take on more duties and do the work effectively unless we reduce the size of their districts by adding more generalized nurses to the staffs of the local health departments.

(5) Engineers

(6) Water and Sewage Plants

MR. HOSKINS: Mr. Chairman, - Inasmuch as I am on for the discussion of two subjects, I hope that you will withhold using the gavel and give me sufficient time. I want to stick strictly to the topic under discussion which is "Census." There is, to my knowledge, no comprehensive census of sanitary engineers in this country.* It is probably not practicable to undertake or maintain such a census because of the rapid changes in employment of engineers both in the public service and in commercial service. There are, however, a number of sources from which registered engineers may be obtained on rather short notice. First of all, in our organization itself we have a register of applicants for employment which is maintained continuously and which gives

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*According to more recent information a census of engineers is to be made by the office of the National Roster of Scientific and Specialized Personnel, a division of the National Resources Planning Board. The census is sponsored by this agency jointly with the United States Civil Service Commission.

us the experience and training of a considerable number of engineers - graduate engineers. Another source of material is, of course, the Civil Service Commission which always maintains a register of engineers of various specialties including sanitary engineering.

Then there is a register of the State departments of health of former employees in the engineering activities and also of applicants for employment which the State departments maintain. We also have access to the list of engineering graduates from recognized engineering colleges. These are always available and immediately available.

Another source of supply is the employment committees of engineering and public health societies such as the American Society of Civil Engineers and the American Public Health Association. Last, we have in the United States Public Health Service itself a nucleus of engineers that could be immediately assigned to emergency activities. We have, for example, on the Ohio River pollution survey, which is now in progress, some 20 to 25 competent sanitary engineers who would be almost immediately available for service because that survey is very close to completion.

So much for the census of engineers.

The census of water and sewage treatment plants. We have instituted at Cincinnati a comprehensive inventory of water and sewage treatment plants throughout the country. It is rather surprising to learn that up to this time there has been no such recording of the location and capacities of water or sewage treatment plants in this country. Some States have accurate and complete lists of the plants under their jurisdictions. There are a great many other States that

have not. We have undertaken the compilation of these data from each individual plant in the country in cooperation with the State Health Departments. We have obtained from each plant in 38 of the 48 States specific information on the types of collecting sewers, the ownerships of the system, the capacity of the sewage treatment plant, the population served, the average flow in million gallons per day; also specific information on the size of the various units, the efficiency of treatment, and the point of discharge of the treated effluent.

We are obtaining also, or have obtained, similar data for each water treatment plant in the United States. We have the rated capacity in million gallons per day of each plant, the population served, the population available to the mains for service; also a detailed description of the treatment process and the extent of laboratory control.

From these data we can readily obtain the excess available capacity for additional loads due to sudden influx of population or industrial development. I think that is all I have to say on either the census of water and sewage treatment plants. The information which is now being assembled we hope to have available for publication later this calendar year.

(7) Laboratories

DR. WAYSON: The purpose of my entering the discussion is that of emphasizing to you gentlemen a branch of your department which in military language would fit into your intelligence department - that branch is your laboratory. An elaboration on the

activities of the laboratory and the necessity of the laboratory is beside the point and unnecessary.

During the past two years visits to a number of laboratories in the respective States have created the impression that there is a definite need for trained, experienced personnel, capable of directing and even of conducting the technical division of the laboratory.

With the present limited emergency and mobilization of less than 1 percent of the population, it seems unlikely that the present needs of laboratories for the country as a whole will be increased or decreased very materially. But in those States in which there is a concentration of tens of thousands of people there will certainly be an additional load thrown upon your laboratories, and I am informed that it has been suggested that such an additional load might be immediate on the 15th of October. How you will meet it with your present personnel will be a matter for you gentlemen to puzzle over, but it is felt desirable that we learn as promptly as possible of the number of available trained persons who may be available to those laboratories in which there is an added responsibility. It is suggested that we might canvass, perhaps through the respective State directories of laboratories, the number of potential trained people and the number of laboratories within the individual States in which the facilities and the material are suitable for further training of personnel. There has been directed to each of the State health officers a request for the most current laboratory report in order that we may get some idea of the volume of work, the number of personnel, and the ratio between them. I hope very much that you gentlemen will respond to that letter. I

have no further suggestions, and the purpose of my entering the discussion, as I said, was to emphasize this particular angle of the work which has been referred to by a number of speakers.

(8) Health Agencies

MR. DALLA VALLE: Dr. Mountin, Dr. Parran, ladies and gentlemen, - We heard yesterday how much stress is being placed on environmental sanitation and housing in the emergency program. We must, however, consider an integration of the health facilities available in a locality, that is, we must think in terms not only of health work done by local health departments but also by other agencies operating in the health field. Environmental sanitation and housing are but two phases of the job facing health departments in an emergency. In any critical situation, whether it be maneuver or cantonment areas, or any other, we must be apprised of all the health facilities available in order to preserve the health of both troops and civilians. With knowledge of the facilities available in an area, we are in better position first, to prepare a program for routine sanitation, and second, to provide other services which come within the field of public health.

It seems opportune at this time to propose a comprehensive survey of health facilities throughout the country. While it is appreciated that the chief problem at this time is that of a probable increase in the population of certain areas, we, as health people, cannot ignore the effect of the present emergency on the health of the people throughout the country and particularly the problem of health facilities.

The most direct approach to get information on health facilities is to canvass municipalities over 50,000, and if possible those over 10,000, even though covering the smaller cities will complicate the problem enormously. So far as is known, no recent appraisal of municipal health facilities (other than water supplies, sewage plants, and hospitals) has been made in this country. It is possible that much may be gained by using the American Public Health Association scheme of rating health services, and considerable information may also be obtained from the recent institutional census by the Census Bureau and the American Hospital Association. However, it is not felt that the information is such that it will give a comprehensive picture of health work done within a given city. In making ratings, it must be remembered that ancillary health services are rendered by other departments distinct from the health department and also by voluntary organizations. Cities, for example, may have divisions of sanitation, school health work, or clinical services not in the health department. Important health activities are often carried on by the water department, the sewer department, or the building department.

With reference to the coverage which should be made in the course of the appraisal, we should include the following items:

1. Data on the availability of water supplies, capacity of the plant, kind of treatment given, and also an estimate of its maximum capacity.

2. Sewage and sewerage facilities.

3. The kind of control of food - and drink-dispensing establishments, including those handling milk. It is necessary that some estimate be obtained of the care, in particular as regards

refrigeration, which can be given to food in the event the supply must be radically augmented to feed an increased population. In addition, a knowledge of the capacity of pasteurization plants and availability of milk must also be obtained.

4. Present housing facilities and the characteristics of the surroundings must be known. In most localities this information is not available since housing has only recently been regarded as a major health activity.

5. Attention given to refuse - and garbage-disposal and methods used must also be known.

6. Some estimate of the nature of industrial activity carried on must be had, particularly as regards industries concerned with national defense.

7. Finally, in the field of medical care, it is important to know the number of practicing physicians, nurses, and dentists, the number of general hospital beds and the types of medical services available in them, the number and capacity of clinics for the care of the indigent sick, and the type and number of other personnel available.

Special attention must also be devoted to the facilities available for epidemiological investigations of endemic or epidemic diseases, insect vectors, animal reservoirs of infection, nutritional disorders, industrial hygiene, and so on. A knowledge of laboratory facilities is, of course, equally important.

The survey of facilities that I have described can be conducted almost exclusively by questionnaires directed primarily to city tax-supported sources, and secondarily to the voluntary and proprietary agencies in those same cities. By this means an over-all picture of

the total facilities of an area can be secured and if necessary this can be further amplified by contacting administrative federations - such as community chests and councils that allocate funds under normal circumstances to support agencies that serve the civil population.

In this connection, not only a survey of the facilities but a listing of the personnel operating those facilities should be obtained at the same time. Such personnel listings in fairly simple form might include data on age, sex, professional classification, employment status, and marital status, as well as specific location of the person employed.

One important item in this connection is to secure a complete list of employees of sub-professional status such as technicians in laboratories. Another item that could be secured quite easily is a breakdown of expenditures of the several services as an index of the adequacy and extent of both public health and medical care work done.

Apart from having this material as an index or central file, it would lend itself to analysis of current personnel status by locality, certain relationships of personnel, also types of facilities, by locality. A tentative questionnaire and the necessary codes and forms for tabular analysis are already on hand.

As to the usefulness of this survey which I have described, I shall cite a few purposes which it will serve:

1. It will place in a central file comprehensive data on the total health activities and the facilities available in every city of more than 10,000 population.

2. The material collected will reveal those places or localities in which more extensive services are needed, whether or not the

populations remain the same or are vastly increased.

3. There would be available a listing by classification of all currently employed personnel, both in public health and medical care departments and institutions.

4. The survey will place in our hands full data on the status of health problems in the field now so that in the event an appropriating agency such as the Congress requests the Public Health Service or others to estimate needs the Service will be in a position to do so on the basis of information on hand.

Thank you very much.

DR. COLLINSON: (Abstract on problems which have arisen in the Bureau of the Census on registration and on the certification of registration.) The demand for proof of birth et cetera will continue to increase with the development of defense industries and the enforcement of draft legislation.

The filing of delayed reports of birth has markedly increased in State bureaus of vital statistics, but at present there is no uniformity in the registration or certification of these "delayed" reports. A certification from one State might be dependable, while one from another State might not be at all dependable.

Minimum standards were proposed at a recent meeting of representatives of government agencies interested in obtaining proof of age, citizenship, and identity of individuals with a committee of State registrars of vital statistics. These standards will be submitted to the State health officers for consideration, and, we hope, adoption. They include the definition of a delayed registration, the requirement of supporting evidence to prove the facts of birth, and

the certification of delayed reports plainly marked "Delayed," including the date of filing and an abstract of the supporting evidence. This may necessitate changes in State vital statistic laws. It is hoped that any new legislation will conform to the new Model Vital Statistics Act, copy of which will be forwarded to you.

The importance of linking personal identity with facts of birth was discussed at the meeting, especially the facts of delayed birth registration. It was recommended that the establishment of identity of individuals through registration of finger prints and signatures in association with birth evidence be studied and experimented with in one or more areas.

COMMITTEE REPORTS*

REPORT OF THE COMMITTEE ON PUBLIC HEALTH IN AREAS OF MOBILIZATION

DR. BIERRING: The mobilization of resources for purposes of defense has given rise to problems in public health which in certain essentials differ from the peace time requirements for which our present health organization was developed.

Military and industrial mobilization modifies or intensifies administrative procedures of public health practice, and without some definite scheme of supplementation State and local health services become overtaxed in many places.

Insofar as they are able, States and local communities in which military or industrial developments take place should expand and perfect their health organization and services to meet the situation. It is the opinion, however, of your Committee that the Federal government should supplement the efforts of States and communities according to local needs. Since the problems to be met will vary from time to time and shift from one locality to another, it is believed that the necessary fluidity could be obtained to best advantage if necessary funds were made available to the United States Public Health Service for the direct employment of personnel, for the purchase of supplies and the construction of needed facilities. The

*These reports were abstracted and edited for the proceedings.

personnel, supplies or facilities so provided should supplement and be integrated with those of State and local health organizations. The fluidity of organization and personnel would be provided by such a plan.

Your Committee is of the opinion that health programs at State and local levels organized in the interest of military and industrial mobilization will be facilitated by having the United States Public Health Service establish and maintain the necessary liaison of State and local health authorities with industries holding war contracts, military authorities, and Federal agencies that may be concerned with activities auxiliary to a public health program in mobilization areas.

In order that public health procedures may be of acceptable standard and reasonably uniform in the several areas of military and industrial mobilization, the United States Public Health Service is urged to develop codes or minimum requirements covering the various phases of sanitation and other public health practice.

The enforcement of such codes or minimum requirements should be undertaken by the constituted State and local authorities in accordance with the regular legal procedure of the State or locality concerned.

The Committee recognizes the need of an immediate survey of military and industrial mobilization areas to determine the nature and extent of reenforcement of State and local health organizations required for the protection of public health.

To implement the above conclusions properly, your Committee recommends specifically:

1. That administrative control and supervision of public health in areas adjacent to military and industrial mobilization centers be under the direction of the State and local health agencies operating with the advice and assistance of the United States Public Health Service.

2. That minimum requirements for environmental sanitation and communicable disease control be formulated by the United States Public Health Service for the guidance of State and local health authorities in the mobilization areas.

3. That coordination of activities pertaining to housing, industrial hygiene, and sanitation be immediately effected by the United States Public Health Service with existing governmental and nonofficial agencies, in order that State and local health authorities may be aided in establishing proper measures for the protection of the health of the civil population in areas affected by national defense measures.

4. That the United States Public Health Service be urged to secure the necessary funds to reinforce existing State and local facilities for efficient and expeditious inauguration and operation of the afore-recommended emergency health activities.

5. That the resolution presented by the Massachusetts State Department of Health be approved in accordance with the condensed text herewith:

To avoid the creation of hazards to the public health of populations in the vicinity of military and naval bases, training areas, and war industries plants, by reason of endangering public water supplies or by the discharge of inadequately treated domestic or industrial sewage from such centers, and;

To enable the State health departments, as charged by law, to maintain definite standards of safety for public water supplies and

adequacy of treatment of domestic and industrial sewage for the protection of the public health;

We request that the Surgeon General of the United States Public Health Service cause to be brought to the attention of the responsible heads of the defense agencies--war, naval, and industrial--the necessity for prompt adoption of procedures whereby the public water supply and waste-disposal facilities of these concentrations of forces of the national defense program will conform to the standards of the department of health of the State in which such facilities may be located.

Report adopted.

REPORT OF THE COMMITTEE ON PROFESSIONAL EDUCATION AND QUALIFICATIONS

DR. BAKER: This Committee desires at this time to reiterate its emphasis at the last meeting of the Conference of State and Territorial Health Officers with the United States Public Health Service on the need for recruiting and training all types of personnel engaged in the several fields of public health work, both professional and technical, and for strengthening and broadening the services to be rendered by the teaching institutions chosen to perform this task.

The following resolution adopted by the Committee on Medical Preparedness of the American Medical Association in July, 1940, was considered by the Committee:

"Whereas, the maintenance of the health of the workers in industry is essential to the defense program of the country; and

Whereas, the prevention of unnecessary illness of workers in industry is necessary to insure uninterrupted production of essential materials, and

Whereas, there exists a shortage in the number of physicians, chemists, mechanical engineers, and other professional groups skilled in industrial hygiene; therefore be it

RESOLVED that the Committee on Medical Preparedness of the American Medical Association recommend to the National Defense Commission that the necessary funds be furnished to the United States Public Health Service to provide the necessary training of physicians, chemists, mechanical engineers, and other professional personnel in order to cope with the industrial hygiene problem in the present national emergency."

This Committee suggests that the same principle be applied in other fields of public health activities, particularly in that of environmental sanitation where the need may be found to be of exceptional importance.

Dr. M. O. Bousfield, representing the Julius Rosenwald Fund, outlined to the Committee the satisfactory services being performed by Negro personnel in public health work. The Fund has offered to aid States with large Negro problems in financing a Negro physician after such a physician has received proper health training. Your Committee suggests that consideration be given by State health officers to such a helpful proffer.

Report adopted.

REPORT OF THE COMMITTEE ON
VENEREAL DISEASE CONTROL

DR. RILEY: From April 1, 1917 to December 31, 1919, the total number of days lost in the army was 6,804,818. Venereal disease ranked third as a cause of disability, being exceeded only by battle casualties and the pandemic of influenza which raged at the time. The actual number of men treated during the war for venereal disease was 338,746 - officers and men. This is equivalent to 23 divisions of 15,000 men each.

Syphilis is most frequently acquired in the age groups which include men to be selected through the draft. The broad application of the serologic blood test to this group would result in the discovery of large numbers of men infected with syphilis and make it possible to apply preventive and curative measures to this group on a basis which has heretofore not been possible.

It is therefore recommended that where facilities can be made available for the collection and examination of specimens for serological blood tests for syphilis on registrants under the Selective Training and Service Act, such tests be made, if the registrant volunteers. The Committee recognizes the size of the task, and it recommends:

1. A team of one or more doctors and nurses to be provided at each registration point and to be responsible for the collection of the specimens. Local and State health departments should be able to obtain the services of the physician through cooperation with the local and State medical societies and provide the nurses without cost to the Selective Draft Board.

2. The blood specimens, with the identification blank properly filled out, to be sent to the nearest public health laboratory where serologic tests for syphilis are performed. Such laboratories should be notified if possible 10 days or 2 weeks in advance of the approximate dates of registration in order that usual serologic work may be set at a minimum during the registration period.

3. The men whose blood specimens prove to be negative by serologic test should be notified directly regarding the laboratory findings. The men who have positive or doubtful serologic results should be directed by mail to report to the physician or clinic named on the original identification slip, which was forwarded from the collection point to the State laboratory. A positive or doubtful result should be reported to the man's physician or clinic in order that the proper physical examination may be performed to supplement the evidence obtained through serologic examination of the blood and to confirm the diagnosis of syphilis.

4. Individuals found to be infected with syphilis may according to circumstances arrange for treatment either from their own physicians or from public clinics, of which there are approximately 2,500 at various places throughout the United States.

This plan has the approval of the Subcommittee on Venereal Diseases of the National Research Council. It is recommended that the American Medical Association be asked to cooperate and to encourage through its affiliated State and county medical societies with physicians in private practice, and that the cooperation of the American Red Cross and other agencies be solicited. The Surgeon General of the Army also approves the procedure.

To give effect to this recommendation and to insure the examination of the largest number of registrants throughout the country, it is further recommended that the following subcommittee be appointed to work out the details:

Dr. Carl V. Reynolds, Chairman

Dr. J. Lynn Mahaffey

Dr. Lester A. Round

Dr. William F. Snow, Consultant

Dr. O. C. Wenger, Consultant

Dr. Harry Eagle, Consultant

(Dr. Godfrey asks whether the medical men will give their services free in those communities where laboratory facilities are available without any additional funds. Dr. Parran refers the question to Dr. Riley.)

(Dr. Riley's answer is that the matter is so important they are willing to take a chance on securing that sort of cooperation; that he is looking hopefully to the American Legion; and that they will of course have the services of health officers and nurses. Dr. Godfrey says that in their surveys of industrial plants in New York they have found that the epidemiological method was much better in producing cases that were actively spreading the disease.)

DR. VONDERLEHR: There is one point we should take into consideration in serologically examining this draft group, and it is that these men are in the age groups most active from a sexual standpoint. Therefore, if they have syphilis, the disease is much more apt to be of less than five years' duration than it is in the later age groups. That would make them potentially infectious, and I believe from a public health standpoint it is much more important to use the serologic dragnet in this limited age group than it would be in the whole adult population.

With reference to the first point - the prevalence of syphilis in various areas - it is conceivable that in certain population groups, particularly selected population groups such as university students, it is not an economic procedure to apply a serologic dragnet because we only find two or three infected persons in every 1,000 of the particular population with whom we are dealing. I should be inclined, however, to leave that matter up to the decision of the individual State and local health officer.

DR. GODFREY: There is one more point, Dr. Parran. If these men are found positive, will they not be rejected by the Army despite their willingness to pass them on every other ground? (Dr. Parran invites Colonel Hillman to come forward and answer.)

COLONEL HILLMAN: (Abstract of remarks) In directing the mobilization of the National Guard, the War Department desired to have every man, so far as possible, a hundred percent available for training. Instructions were sent to the corps areas that individuals with acute or chronic venereal disease would not be inducted with the National Guard.

Those directions have not gone out for the draft. The Surgeon General has brought up the difficulty of determining whether a man has acute or chronic venereal disease.

It is the desire of the War Department that men coming before the induction examining boards - the boards under the Army - shall go through the examination and at the end of the passage through that board shall be told, so far as possible, whether they are to be inducted into the military service. The idea is that they will be inducted at that time and forwarded to reception centers. Now to carry out certain serological tests, the blood will have to go to a laboratory and will not be reported on for a day or two. So that determination cannot very well be used in accepting or rejecting a man for military service.

The Surgeon General has submitted to the War Department a proposal that the Surgeon General of the Public Health Service be requested to cooperate and provide facilities for doing serological tests. It is hoped that every man coming before the final examining board will have a serological test.

It has not been determined yet whether acute and chronic venereals will be accepted in the draft. I am rather inclined to think that only

those will be rejected who have obvious venereal infections that can be determined by physical inspection, and I am not sure that even they will be rejected.

(The discussion switched to the Navy. Commander Stephenson explains that they are fortunate in being a smaller organization than the Army. Their recruits are examined in the local territory and again examined at recruiting stations where they are sent. "We are fortunate in that we have experienced and regular Naval officers of years of service on the recruitment program, and we are losing only about 1 percent under the most rigid conditions after they arrive from the recruiting station. If a man turns up with venereal disease after he has been received, he is very promptly thrown out.")

(Dr. Pierce of the Public Health Service objects to the discussion on the score that they are confusing two separate subjects. One, the examination or blood tests of persons registering on October 15th. The other, the question of whether men with syphilis will be inducted into the Army or Navy. This project is really a case-finding one, and that should be the subject of discussion.)

(Dr. Musser of Louisiana argues that the case-finding theory is magnificent, but that they cannot throw all that work suddenly upon the State laboratories and expect reliable results. He asks whether the entire doctor population would be expected to give up their everyday duties and spend the hours from 7 in the morning until 7 at night in collecting this blood from the registrants.)

(Dr. Everhart of Pennsylvania seconds Dr. Musser's objections and also some of those raised in the morning's discussion.)

(Dr. Moyer of Michigan thinks they could do the test up there if given a month's time and approves the idea of examination.)

(Dr. Brown of California suggests that they might appeal to the private laboratories.)

(Dr. Baxter of Illinois thinks the idea is a grand one but doubts its feasibility because of the expense and the load of work already being carried by the laboratories.)

In the absence of a formal resolution by the Committee on Venereal Disease Control, the following memorandum was offered for the record by Dr. Stanley H. Osborn and adopted by the Conference as an amendment to the report of the Committee on Venereal Disease Control:

The only question at issue is one of funds with which to do the serological work. The Committee in suggesting that the State perform the tests, wherever the facilities are available, admits that facilities are not everywhere available. All health officers assembled agreed that a serologic blood test for syphilis on every registrant is desirable; and that we have in connection with registration for selective service an opportunity to do an excellent epidemiologic job on an age group where the disease in an infectious stage is most prevalent. It is further agreed by all State health officers present that the test will be performed on all registrants in all States provided funds can be made available for this purpose.

The amended report was adopted.

COMMITTEE ON HOSPITAL AND MEDICAL CARE

DR. GODFREY: The Committee has given consideration to only three of the many items which might come before it at this time. The first relates to any communicable disease reportable in the State when the physical examination of registrants under the Selective Service Act is conducted.

WHEREAS it is the opinion of the Committee that while regulations for the administration of the Selective Training and Service Act of 1940 provide that the cause of physical rejection may not be made public, this should not be interpreted as relieving the examining physician of the responsibility for complying with provisions of State health law regarding reporting of communicable diseases, including venereal diseases and tuberculosis: Therefore be it

RESOLVED, That prompt steps be taken to include such an interpretation in the Presidential Regulations governing administration of the Selective Training and Service Act of 1940.

(Dr. Williams suggests that by saying "the chairman of the medical examination board" one individual can be made to carry the responsibility. This suggestion is incorporated in the report.)

The resolution is adopted.

DR. GODFREY: The Committee further considered the program planned by the National Youth Administration for the examination of the youth of the county receiving its benefits, and for correcting so far as possible any remediable defects that may be found. The Committee feels that this may be an important contribution toward

elevating the health level both mental and physical of an important group in our population. The Committee offers the following resolution:

WHEREAS the health program to be initiated by the National Youth Administration is planned to promote the health and efficiency of its enrolled youths through the utilization of health and medical facilities which already exist, or may be supplemented by the National Youth Administration; and

WHEREAS the program as planned seeks the active cooperation of State and local health departments: be it

RESOLVED, That the Conference of State and Territorial Health Officers endorse the principles and purpose of the National Youth Administration's health program; and,

That the Conference recommend that the State health department serve, when requested, as co-sponsor of such State-wide National Youth Administration health projects.

Resolution adopted.

DR. GODFREY: The Committee further considered the rehabilitation of men found disqualified for military or naval service because of physical defects. The Committee accepts the decision of the military authorities that only so-called Class A registrants will be inducted into service. The imperative need for organizing and training as quickly as possible a suitable reserve for immediate defense should not exclude consideration of the military, economic, and social value attaching to an organized effort to correct remediable defects which

have caused rejection. Such rehabilitation would add to the availability and efficiency of workers in essential defense industries in addition to augmenting the armed forces. The Committee offers the following resolution:

RESOLVED, That persons who are otherwise found to be satisfactory and available for induction into the land or naval forces of the United States for training and service as provided by the Selective Training and Service Act of 1940 but who are placed on deferred status because of physical defects or ailments which are readily amenable to treatment and cure may, upon application to the Surgeon General of the United States Public Health Service, be considered for acceptance as beneficiaries of that Service for the correction of such physical defects or ailments.

Resolution adopted. Report as a whole adopted.

COMMITTEE ON FEDERAL RELATIONS
STATE AND PROVINCIAL HEALTH AUTHORITIES

DR. OSBORN: Your Committee was presented with the need for continued attention to the maintenance of high standards in the sanitary control of milk. The suggestion was made that further efforts should be extended to have the Milk Sanitation Code of the United States Public Health Service adopted in all parts of the United States. Your Committee recommends that this matter be referred to the Committee on the Control of Milk of the State and Provincial Health Authorities of North America for immediate consideration.

The Committee desires to express the appreciation of the State and Territorial Health Officers to the United States Public Health Service for its efforts to have the personnel occupying strategic positions in local and State departments of health placed on the deferred list by authorities of the Army and Navy in order that the civilian public health service will not be disrupted.

Report adopted.

COMMITTEE ON INTERSTATE AND FOREIGN QUARANTINE

DR. CHESLEY: Dr. Parran, members of the Conference - I requested that this report be put on last for two reasons. In the first place, there is no written report. The Committee took up one or two points which it considered as rather important, but before reaching a decision on these points, we thought it would be wise to

take them up, and probably some other things, in executive session for which the Public Health Service, the Army, and the Navy are invited to remain.

It is the duty of the State and Territorial Health Officers to make available all the information that can be collected and interpreted locally to the Federal authorities. Some interpretation of that information is advisable. The Army, the Navy, and the Public Health Service are going to be faced with a tremendous amount of new work, and unless those who are on the spot and familiar with the circumstances interpret things, it may be impossible to carry out all the recommendations in the reports.

It also seems to us that coordination of the various official divisions of the United States Government would help. The Public Health Service has 6 districts. The Children's Bureau has several. Then we have the Census Bureau districts, the Social Security Board districts, the 9 corps areas of the Army, the 16 naval districts, and 3 areas of the Red Cross. Further than that, we have all these defense draft boards and 8 regions for the industrial hygiene outfit on the defense industries.

It seems to us that Washington will experience considerable difficulty in starting out all these matters and getting the right reports to the right people in time to do something about them.

This is not specifically our business, but it is something that we took up yesterday. It was discussed by the consultants from the Army and Navy, and they, seeing the practical difficulties, think the local health authorities should interpret information, do what they can on the spot, and pass it along if they consider it of national importance.

That relates particularly to reciprocal notifications. If the men assembling for either the Army or Navy come from areas where communicable disease is present, then the Army, the Navy, and the Public Health Service should know, possibly before some of these people are sent on. Some of them may be in the incubation stages of the disease.

I suggest that these matters be taken up in executive session and brought probably to some workable proportions.

DR. PARRAN: Dr. Chesley has moved an executive session. Is the motion supported? (Seconded)

DR. PARRAN: Those in favor please say "aye." Opposed. It is carried.

The executive session will proceed with the State health officers, their representatives - did you say representatives of the Public Health Service also?

DR. CHESLEY: Yes, sir, and the Army and the Navy.

DR. PARRAN: The Army and the Navy. Very well.

(The Conference adjourned. The executive session opened.)

At the executive sessions which succeeded the Conference, the Committee on Federal Relations of the State and Provincial Health Authorities of North America passed the following resolution:

The Committee gave careful consideration to the problems arising or that threaten to arise in State, regional, and local departments of public health throughout the United States from the call to active service of certain professional members of their staffs who hold reserve

commissions in the Army, Navy, and Marine Corps, and who are highly trained and specialized in the field of public health and, therefore, essential for the protection of the health of the communities which they serve.

That measures for the national defense are of primary importance was given full recognition by the Committee. The Committee expressed the conviction of every member of the Conference that any action that may be deemed necessary by those in charge of the national defense program must and should receive complete compliance and support.

After consideration of the many problems involved, the Committee passed the following resolution:

Whereas the Conference of State and Provincial Health Authorities of North America is of the opinion that adequate protection of the health of the civilian population is essential for the successful prosecution of the program of national defense, and

Whereas there now exists a serious shortage of qualified personnel to cope successfully with existing public health problems, and efforts to reduce this shortage have been during the past four years an expressed policy of the Federal Government, and

Whereas the general program of national defense contemplates a great increase in the number of military mobilization and maneuver areas, a similar expansion of industrial activity and a variety of other developments, all of which will intensify existing civil health problems and some of which will create new problems, and

Whereas the adequate protection of the public health requires the services of certain professional and technical personnel whose training

and qualifications can be acquired only through years of intensive study and experience: Therefore be it

RESOLVED, That in the plans for national defense, the work of the official public health agencies in the United States be recognized as an essential part of the program of national defense, and

Be it further RESOLVED, That the Conference of State and Provincial Health Authorities of North America express to the Surgeons General of the Army and the Navy and to their representatives who have participated in the deliberations of the Conference of State and Territorial Health Officers with the United States Public Health Service its sincere gratitude and appreciation for the information they have given and their comprehensive understanding of public health problems that have been discussed.

Be it further RESOLVED, That the Conference of State and Provincial Health Authorities of North America request the continued interest and cooperation of these officials to the end that such measures may be taken by the military authorities as they may deem necessary to insure that the staffs of State, municipal, and other local health departments may not be depleted and weakened by withdrawals to such an extent that they will be unable to afford the health protection necessary to the civilian population and for the successful prosecution of the measures for the national defense, and

Be it further RESOLVED, That the Surgeon General of the United States Public Health Service be requested to forward a copy of these resolutions to the Surgeon General of the Army and the Surgeon General of the Navy and that he continue to cooperate with them in presenting and seeking the satisfactory solution of problems that may arise from time to time in the field of public health as related to the program of national defense.

APPENDIX

REGISTRATION

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Dr. A. C. Baxter
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Dr. T. P. Burroughs
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Dr. Willard Camalier
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